

ANNUAL REPORT  
OF THE  
**Department of Lands and Mines**  
OF THE  
PROVINCE OF ALBERTA  
FOR THE  
**Fiscal Year Ended March 31st**  
**1939**

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PUBLISHED BY ORDER OF THE LEGISLATIVE ASSEMBLY

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1940



*To the Honourable J. C. Bowen,  
Lieutenant-Governor of the Province of Alberta.*

SIR:

I have the honour to submit the report of the Department of Lands and Mines for the fiscal year ended March 31st, 1939.

I have the honour to be, Sir,

Your obedient servant,

N. E. TANNER,

*Minister of Lands and Mines.*

Edmonton, December 20th, 1939.



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GOVERNMENT OF ALBERTA  
DEPARTMENT OF LANDS AND MINES

Resulting from the transfer on October 1st, 1930, of Alberta's natural resources from federal to provincial control, the Department of Lands and Mines was on this date brought into being by the Alberta Government. The general purpose of the new Department was to be one of supervision and management of the resources in question.

Ministers of the Department, responsible at different periods for this administration, appear as follows:

*Hon. R. G. Reid, appointed October 2nd, 1930,*  
*Hon. Hugh W. Allen, appointed July 10th, 1934,*  
*Hon. Charles C. Ross, appointed September 3rd, 1935,*  
*Hon. N. E. Tanner, appointed January 5th, 1937.*

CHIEF OFFICERS  
DEPARTMENT OF LANDS AND MINES

March 31st, 1939

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Honourable N. E. Tanner.....*Minister of Lands and Mines*  
John Harvie .....*Deputy Minister of Lands and Mines*  
T. C. Rankine .....*Departmental Solicitor*  
J. W. Stafford.....*Director of Lands*  
J. W. Hamilton .....*Superintendent of Mining Lands*  
T. W. Dalkin .....*Superintendent of the Technical Division*  
T. F. Blefgen .....*Director of Forestry*  
J. A. Hutchison .....*Assistant Director of Forestry*  
F. W. Neilson .....*Chief Timber Inspector*  
I. N. McKinnon .....*Accountant*  
A. A. Millar .....*Chief Inspector, The Coal-mines Regulation Act*  
M. Gossip .....*Agent, Calgary Land Agency*  
R. Cruickshank .....*Agent, Lethbridge Land Agency*  
J. J. E. Clarke.....*Agent, Peace River Land Agency*  
J. L. Irwin .....*Statistician*





# REPORT

OF THE

## Department of Lands and Mines,

1938-39

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*Honourable N. E. Tanner,  
Minister of Lands and Mines,  
Edmonton.*

SIR:

I have the honour to submit the ninth Annual Report of the Department of Lands and Mines for the fiscal year ended March 31st, 1939.

The year opens with two very important actions by the Government taken in the interests of the preservation of the natural resources;

Firstly, the bringing to Alberta of Mr. W. F. Knode of the firm of Messrs. Parker, Foran, Knode and Boatright of Texas, U.S.A., a noted authority on oil and gas conservation, to which mention was made in my report of 1937-38.

Secondly, the action taken for the immediate rehabilitation of the settlers who live in the areas subject to drought, through the formation of a Board to deal with the problem. The members of the Board were representative of three departments—Agriculture, Lands and Mines and Municipal Affairs. When the organization was completed it was felt that the Board should be in complete control of all activities within the drought area necessitating the bringing under one Minister the unified control of all governmental actions. The Special Areas Act, 1939, places the authority with the Minister of Lands and Mines and he is empowered to assign to the Board the performance of any duty or power in relation to any Special Area and as agent of the Minister the Board has the same powers and capacity to perform or discharge such duty or power as conferred by the Act on the Minister.

Following the decision to increase the responsibility of the Board, it was felt preferable to bring in as members of the Board residents of the drought area conversant with the problems and needs of the settlers. Consequently the Board was re-established with Messrs. A. C. McCully, chairman; G. R. Armstrong, and D. M. Graham, Secretary.

A copy of "The Special Areas Act, 1939" will be found immediately following this section of the Report, together with maps on each Special Area.

With the arrival of this particular date the Department completes its first eight and a half years of administration since October 1st, 1930, the date on which it was brought into being, and the date, also, on which the natural resources of Alberta were officially transferred from dominion to provincial control. Before touching on the activities of the present period under review I feel that with the passing of this period of years a resume of events covering the time in question, would be of interest.

At the close of the first fiscal year, March 31st, 1931, the first Annual Report of the Department covered of course a period of only six months, the transfer of the resources and the formation of the Department dating from October 1st, 1930.

The following sections from this first Report are reproduced as follows:

"The period which is reviewed constitutes only one-half of the year, dating as it does from October 1st, 1930. This date is of course significant in that it is representative of the day upon which the Natural Resources of Alberta were formally transferred to the control and administration of the Alberta Government. The report which is herewith presented to you carries an additional significance in that it constitutes for the Provincial Government archives the first report of this new and long expected administration.

The short period it covers was one of considerable importance and responsibility. It was a period which demanded not only a continuance of administration, free from complications or confusion, of the various divisions of the Department but also the installing of an efficient system which would be suitable and necessary for the new Provincial control.

Legislation was enacted during the session of the Legislature for the administration of lands, minerals, forests, fisheries and to control the drilling of oil and gas wells. In the interim period between the transfer of the resources to the Province and the proclamation bringing the legislation into force, the disposition of lands and minerals continued to be made according to the terms of the Federal legislation in force when the natural resources came under Provincial control.

The following summary shows to what extent the Province benefited from the agreement made with the Dominion of Canada:—

Total Area of Province .....	163,382,400	acres approx.
Water Area of Province .....	4,150,400	" "
Land Area of Province .....	159,232,000	" "
Lands Patented as at Sept. 30, 1930 .....	42,930,000	" "
Lands Alienated as at Sept. 30, 1930 .....	5,314,000	" "
Area of Unalienated Provincial Lands as at Sept. 30, 1930 .....	84,467,170	" "
Total Area within Forest Reserves .....	12,436,500	" "
Water Area within Forest Reserves .....	43,000	" "
Land Area within Forest Reserves .....	12,393,500	" "
Total Area within Dominion Parks .....	13,434,240	" "
Water Area within Dominion Parks .....	635,000	" "
Land Area within Dominion Parks .....	12,799,240	" "
Indian Reserves .....	1,328,090	" "
Area of Surveyed Land including water areas but excluding Dominion Parks and Indian Reserves .....	70,007,000	" "

Due to misunderstanding as to the requirements of the Province, the Department of the Interior has been very loath to part with any of the permanent records in its possession. Negotiations are at present being conducted for the transfer to the Province of the files, registers and other documents pertaining to property of which there has been disposition made, and it is anticipated that these negotiations will be successfully completed when there will come into the possession of the Department of Lands and Mines many hundreds of thousands of documents and plans now forming a part of the permanent record in Ottawa.

The various divisions of the Department of the Interior have been most considerate in furnishing to the Province information required in the setting up of new records and without this hearty co-operation it would have been impossible for your officials to have accomplished in the short space of time the numerous details that have been written into the records of the Province."

The following year, 1932, is principally remembered as a period of world-wide economic depression. Purchasing power was reduced to a minimum and the danger of over-production faced many enterprises with industrial stagnation as a natural result.

While unproductive economically, the year was nevertheless destined to fill an important niche in the history of the Province as a result of the intensive organization of this large and new Department. It was definitely a period during

which intensive application to detail became very necessary. This necessitated a long and strenuous effort on the part of all members of the staff and the work was carried out efficiently and well. It should, I think, be emphasized that this particular year was an extremely important one in the Department's history for in it was laid the foundation upon which future administration would be built.

It was in this period that I made public reference to the results, now so unfavourable to this Province, of land subsidies which had been granted in return for railway construction—the actual land and mineral rights disposed of in return for an inadequacy of railway mileage.

The following paragraphs are quoted from my Report, touching on this question:—

“Land subsidies which had been granted in the western provinces to aid in the construction of railways and granted also to the Hudson's Bay Company are shown, as applicable to this Province up to the date of transfer of the resources, in the following table:

	Alberta mileage	Alberta acre- age patented
Calgary and Edmonton Railway Company .....	295.07	1,806,168
Alberta Railway and Coal Company .....	174.12	1,096,217
Souris Branch, Canadian Pacific Railway Company .....	Nil	160
Pipestone Extension, Souris Branch, Canadian Pacific Railway Company...	Nil	521
Great North West Central Railway Company .....	Nil	640
Manitoba Southwestern Colonization Railway Company .....	Nil	319,680
Canadian Northern Railway Company .....	Nil	859
Manitoba and Southeastern Railway Company .....	Nil	312
Canadian Pacific Railway Company .....	332.10	9,807,174
Total .....	801.29	13,031,731

In the four western provinces of Manitoba, Saskatchewan, Alberta and British Columbia, 3,527.26 miles of railway were constructed, each Company being given a land subsidy to aid in the construction of its own particular railway. In the four provinces combined, a total of 31,672,006 acres was transferred to the different companies as land subsidies for the railway mileage so constructed.

In this connection a total of only 801.29 miles was representative of railway construction in Alberta. But in spite of this small mileage no less than 13,031,731 acres has been granted out of Alberta lands, a figure greatly in excess of the actual acreage earned by the construction of transportation lines within this Province. In addition to this, these land subsidies which were granted carried to the new ownership, in practically every instance, all minerals underlying such lands.

In compliance with the Agreement of the nineteenth of November, 1869, the Hudson's Bay Company acquired the right to one-twentieth of all lands in the fertile belt of the three western provinces set out for settlement, and there has been granted by the Dominion of Canada a total of 2,404,000 acres within the Province of Alberta, as representative of land subsidies to the Hudson's Bay Company under the terms of this Agreement.”

In April, 1932 The Turner Valley Gas Conservation Board was brought into being. My report on that Board and on the necessity for conservation of pressure is as follows:—

“Turner Valley Gas Conservation Board.—The creation of the Turner Valley Gas Conservation Board was effected in April, 1932, with a view to the continuation and completion of the tests previously carried out by the Petroleum and Natural Gas Division. With the assistance of a staff of six engineers who were continuously employed on these tests, the work of the

Board was duly completed. A copy of the Board's findings, shown as Exhibit A, appears further on in this report in the Petroleum and Natural Gas section. These findings, which confirmed the initial data procured by the Petroleum and Natural Gas Division, contained also an entire survey of past operations in Turner Valley and made recommendations for future efficient development.

The prorating recommendations made by the Board in its report were strongly protested by the operators, particularly the independents, at two meetings held, one in Calgary and one by the Agricultural Committee of the Provincial Legislature in Edmonton.

After hearing the operators' views it was decided that no useful purpose would be gained by continuing the tests at public expense. This resulted in the decision that future operation of the field would be in accordance with provincial regulations, subject to the cancellation of the temporary measure which prohibited the drilling of new wells to the limestone. In addition to this, the volume of gas allowed to be drawn from each well was to be increased to forty per cent. in lieu of the twenty-five per cent. as previously specified and the enforcement of regulations respecting the installation of meters was to be carried out.

Necessity for Conservation of Pressure.—It is now generally realized that a continuance of the wasteful methods, which in the past have dissipated so great a volume of gas and many hundreds of pounds of useful pressure, would be seriously detrimental not only to the future of the field, but also to the success of operations at present in force.

A very useful underground pressure still exists in Turner Valley, and its use on an economic basis will insure a natural propellant for forcing naphtha to the surface. The necessity for its preservation as an economical means of production and as opposed to the alternative of exorbitant and prohibitive expenses which would be incurred by mechanical means is most apparent."

The full report of the Board is given at the close of the Petroleum and Natural Gas Division's Report for 1932-33, written by the Director, Mr. Calder.

On March 31st, 1933 the office of the Grande Prairie Land Agency was closed, the staff and office material being transferred to the Peace River agency, from which centre the two areas until further notice were to be administered.

The move was partly an economic measure and partly a desire to centralize the two districts from one office, a sub-agency becoming established at Grande Prairie.

On Thursday, August 9th, 1934 the death took place of Albert Helmer, Supervisor of Grazing, while visiting in California. Mr. Helmer's Government service started in 1880 and a year later he was a member of the party which surveyed the fourth meridian. An obituary notice briefly reviewing his career is given in the 1933-34 report.

The year 1934-35 was conspicuous as the period in which the Report of the Royal Commission on the Natural Resources of Alberta was published. The establishment of two other Royal Commissions, the enquiry into the welfare of the half-breed population of Alberta and the investigation covering the coal-mining industry of Alberta, materialized during this period.

The following, relative to these three Commissions, is quoted from my Report of that year:—

"Before giving a resume of our activities, may I digress to refer to the report of the Royal Commission on the Natural Resources of Alberta under the chairmanship of the Honourable Andrew K. Dysart, Judge of the Court

of King's Bench, Manitoba, transmitted the 12th of March, 1935, to the Right Honourable R. B. Bennett, Prime Minister of Canada.

The Commission was instructed to ascertain what consideration should be paid to the Province, in addition to the sums provided in Paragraph 20 of the Natural Resources Agreement, in order that Alberta may be placed in a position of equality with the other Provinces of Confederation with respect to the administration and control of its natural resources as from its entrance into Confederation in 1905.

The Department wishes to express its appreciation to M. M. Porter, K.C., of Calgary, for the excellent way in which the case for the Province was presented. Throughout the whole of the proceedings Counsel for the Province emphasized to the Commissioners that he was there to help them in their many ramifications.

Aside from the large amount of data furnished by the Province as well as the Dominion, Counsel was faced with the necessity of conducting a minute research into the historical background of Confederation and his presentation of the Province's case reveals how thoroughly and efficiently such investigation was conducted.

Our appreciation is likewise extended to James J. Frawley, K.C., Solicitor of the Attorney-General's Department of the Alberta Government, for his long hours of intensive research and compilation of data on a great variety of subjects, and to James C. Thompson, C.A., Provincial Auditor, Province of Alberta, for his valuable assistance in an advisory capacity in all matters relating to finance.

As requested by the Legislature, a Commission under the chairmanship of the Honourable Albert Freeman Ewing, a Judge of the Supreme Court of Alberta, was established to enquire into the problems of health, education and general welfare of the Half-breed population of Alberta. Negotiations are also proceeding for a Commission to investigate the coal mining industry of Alberta and it is anticipated that the Enquiry will be held at an early date.

The Report of the Royal Commission on the Natural Resources of Alberta, which materialized during the period under review, was an event of first importance not only to this Department but also to the Alberta Government.

The function of this Commission was specifically one of arbitration with regard to whether any, and, if any, what consideration, in addition to the sums provided in Paragraph 20 of the Natural Resources Agreement (Statutes of Canada, Ch. 3, 1930) should be paid to the Province in order that Alberta, as previously mentioned, may be placed in a position of equality with the other Provinces of Confederation with respect to the administration and control of its natural resources as from its entrance into Confederation in 1905.

*Authorization by Order in Council.*—The Commission on the Natural Resources of Alberta was created pursuant to authorization contained in Order in Council, P.C. No. 1588 of July 19th, 1934.

*Personnel.*—The commissioners appointed were as follows:

The Honourable Andrew K. Dysart, Judge of the Court of King's Bench, Manitoba, Chairman;  
George C. McDonald, Esq., Chartered Accountant, Montreal;  
Oliver Master, Esq., Chief, Economics Division, Department of Trade and Commerce, Ottawa, Secretary.

Counsel appearing before the Commission for the Dominion of Canada were:

James McGregor Stewart, K.C., Halifax;  
C. P. Plaxton, K.C., Senior Advisory Counsel of the Department of Justice, Ottawa.

Counsel appearing before the Commission for the Province of Alberta were:

M. M. Porter, K.C., Calgary;  
James J. Frawley, K.C., Solicitor of the Attorney-General's Department,  
Government of Alberta.

Assisting at the hearings and elsewhere were responsible officials of several Departments of the Dominion and Provincial Governments.

*Published Verbatim Reports of the Proceedings before the Commission.*—The verbatim Report of the entire proceedings before the Commission has been published in typewritten form in three bound volumes.

*Public Sitzings.*—Public sittings for the reception of evidence and argument were held at Ottawa where, because of the accessibility of records, the convenience of all parties was best served.

Following a preliminary meeting on August 14th, hearings were divided into several periods, which were as follows—October 2nd and 3rd, October 16th to 19th inclusive, November 21st and 23rd, December 4th to 8th inclusive, and December 11th.

The sittings, it will be observed, ranged themselves into several groups separated from one another by intervals of varying duration. These intervals were required for investigating sources of information and for securing and preparing evidence as the same was requisitioned from time to time during the progress of the Enquiry and as issues emerged and took definite form. The task of procuring and compiling the vast and varied amount of needed information was one of great magnitude and demanded the services of a considerable number of departmental officials for many weeks.

*Evidence.*—Evidence to be presented before the Commission was divided between statements of Counsel and documentary material. The latter comprised over 250 exhibits covering a wide range of subjects which included maps and graphs, copies of Orders in Council, extracts from public documents, quotations from the public utterances of public men, synopses and analyses of records and complicated tabulations of data.

*Similarity to Saskatchewan Report.*—It should be stated that this Report in many sections follows closely, if not identically, the text of the Report of the Royal Commission on the Natural Resources of Saskatchewan. This Enquiry, which began when the hearings in the Saskatchewan Enquiry had been completed, had to deal with problems closely paralleling those of Saskatchewan, both in respect to historical background and practical difficulties, and has been conducted by three Commissioners of whom two were members of the Saskatchewan Commission. The work of the two Commissions, in the latter stages, was carried on concurrently and the Reports, though separate, covered much common ground in the same or closely similar terms.

*Report of the Commission.*—The Report of the Royal Commission on the Natural Resources of Alberta, following the submission of all evidence, was published, both in typewritten form in bound volume and in printed form as a Government publication, on March 12th, 1935, upon which date it was presented to the Prime Minister of Canada by the Honourable A. K. Dysart, Chairman of the Commission.

The Report opens with a copy of the letter of presentation to the Prime Minister followed by a copy of the Order in Council, P.C. 1588, July 19th, 1934, which authorized the creation of the Commission. The body of the Report is divided into nine brief chapters concluding with a note by Mr. Commissioner McDonald.

The chapters deal with the following subjects:

Chapter

- I. Introductory
- II. Control of Natural Resources in Canada
- III. The Dominion's control of Natural Resources
- IV. The Attitude of the Prairie Provinces
- V. The Reference: its Scope and Intent
- VI. Alberta's Claims—General Observations.
- VII. The Claims considered
- VIII. Credits claimed by the Dominion
- IX. Conclusions and Recommendations

Note by Mr. Commissioner McDonald

*Recommendations.*—The Commissioners' Recommendation is contained in the last chapter of the Report on page 38. In this section the sum mentioned, which it considers should be paid to the Province of Alberta by the Dominion Government, is \$5,000,000. It was also proposed that this sum should bear interest at the rate of five per cent per annum from October 1st, 1930 to March 31st, 1935 and thereafter to such date and at such rate as the two Governments may agree upon. Furthermore, it was recommended that no portion of this sum should be considered as belonging to the Alberta School Lands Fund and also that it should include all sums payable by the Dominion in respect of townsites, mentioned in paragraph 81 of the Report, and other minor adjustments.

The sum of money involved in this recommendation was determined upon as the result of compromise and agreement as to the amount but not by agreement as to the method of calculation, the arithmetic of the case presenting too many variables for two persons to reach a common result in precisely or even closely similar manner. With a given agreement upon the result it was deemed unnecessary to set out individual viewpoints as to the different ways in which the Dominion and Provincial Credits should be respectively compiled. This, it was stated, would open up a problem lending itself to endless variation and consequently to endless controversy."

In the Petroleum and Natural Gas Division's section of the Report for 1934-35 the following exhibits were included by the Director, Mr. Calder:—

- Exhibit "B"—"Metering of Gas Wells," by J. G. Spratt, Divisional Engineer of the Division;
- Exhibit "C"—"Turner Valley Drilling Practice," by Vernon Taylor, Assistant Engineer of the Division;
- Exhibit "D"—"Natural Gas in Alberta," by F. K. Beach, Office Engineer of the Division;
- Exhibit "E"—"Wainwright Oil Field," by R. M. S. Owen, Assistant Engineer of the Division.

At the beginning of the fiscal year, 1935-36 a reorganization of the Department was put into effect which included the creation of a School Lands Division, a Mining Lands Division and the elimination of the Edmonton Land Agency.

I reported on these three changes as follows:

*"School Lands Division.*—The School Lands Division is responsible for the administration of all lands of the School Endowment in accordance with the provisions of the Provincial Lands Act and regulations as established by the Lieutenant-Governor in Council under authority of the said Act.

Administration of the new Division deals with the maintenance of complete index and filing systems, authentic records, applications for surface rights, enforcement of payments owing on land purchases, leases, etc., and the collection of crop shares on cultivation leases together with the marketing of grain paid on a crop share basis.

*Mining Lands Division.*—Functions of this new Division include the disposition of mineral rights in provincial and school lands under authority of

the Provincial Lands Act and regulations as promulgated by the Lieutenant-Governor in Council.

Administration deals with applications for mining rights, issuance of leases, registration of assignments and cancellation of rights.

All business relative to credits and royalties, combined with the duties of Mining Recorder for the Edmonton District, are also responsibilities of the Division.

*Abolition of the Edmonton Land Agency.*—In the general process of re-organization the abolition of the Edmonton Land Agency became obvious for the purpose of eliminating duplication of records.

The closing of this Agency took effect therefore at the beginning of the year and the area of the Edmonton Land District with all the business accustomed to be transacted therein came under the control of the various Divisions of the Department to which they were applicable."

Also during this year I reported further on the Royal Commissions held for enquiries into the welfare of half-breeds and into the coal-mining industry. A third Royal Commission, in addition to these two, enquiring into the Coalhurst mining disaster on December 9th, 1935, is also reported on.

The following, relative to these three, is reproduced:—

"During the period of this Report three Royal Commissions were held which bore a direct relationship to the activities of this Department.

The first, the Report of which was presented in December, 1935, was an investigation respecting the coal industry of the Province of Alberta. The Rt. Hon. Sir Montague Barlow, Bart., P.C., K.B.E., LL.D., was appointed as Commissioner for this Enquiry.

The second, reported on February 15th, 1936 was held for the purpose of investigating conditions of the Metis population of this Province. Commissioners sitting on this Enquiry were the Hon. A. F. Ewing, Judge of the Supreme Court of Alberta, J. M. Douglas, Stipendiary Magistrate for the Northwest Territories, and Dr. E. A. Braithwaite, Coroner and Inspector of Hospitals, Department of Public Health. T. C. Rankine, Departmental Solicitor, Department of Lands and Mines, was appointed Secretary to the Commission.

The third, under the Commissionership of the Hon. H. W. Lunney, Judge of the Supreme Court of Alberta, was carried out with a view to conducting an Enquiry into the Coalhurst mining disaster which occurred on December 9th, 1935. The Report of this Enquiry is dated April 14th, 1936, two weeks after the close of the fiscal year. The disaster, however, having taken place within the period under departmental review and the investigation as to cause being under way at the close of the fiscal year, the Report of this Commission is included as a section of this Annual Report of the Department.

A resume of the three Royal Commissions follows.

#### REPORT OF THE ROYAL COMMISSION RESPECTING THE COAL INDUSTRY OF THE PROVINCE OF ALBERTA, 1935

Commissioner

Rt. Hon. Sir Montague Barlow, Bart, P.C., K.B.E., LL.D.

This Report, presented by the Rt. Hon. Sir Montague Barlow, Bart., P.C., K.B.E., LL.D., Commissioner presiding at the Enquiry, covers in considerable detail an investigation carried out with a view to the general betterment of Alberta's coal-mining industry.



*Authorization by Order in Council.*—The Commission for this Enquiry was created pursuant to authorization by Order in Council, Government of the Province of Alberta, dated September 13th, 1935.

*Published Report.*—The Report covering this investigation has been published in printed form by the Government of the Province of Alberta.

*Subject-matter of the Report.*—Subject-matter of the Report is as follows:

- Letter of Presentation to His Honour the Lieutenant-Governor in Council;
- Publication of the Order in Council creating the Commission;
- Recommendations made as result of the Enquiry;
- Seven Chapters into which the main body of the Report is divided;
- Two Appendices dealing with
  - (I) Aggregate profits and losses and
  - (II) Analyses of Coal.

*Acknowledgment.*—On the opening page the Commissioner acknowledges the skilled assistance, which, in compiling this Report, he received from William Armour, Esq. of the Mines Department of Great Britain, who acted as Technical Adviser, and from the following Government of Alberta officials: R. Andrew Smith, Esq., K.C., Legislative Counsel, who acted as Counsel and Secretary, Andrew A. Millar, Esq., Chief Inspector, The Coal-mines Regulation Act, Department of Lands and Mines, and James C. Thompson, Esq., C.A., Provincial Auditor, and representatives of his Department.

*Resume of the Report.*—A resume of the Report, divided into the seven chapters already referred to, follows.

*Chapter I.*—Chapter I, under the heading of Introductory, opens with a reference to the Commission constituted by Order in Council dated September 13th, 1935, made under the Public Enquiries Act, 1922.

Following is a list of the names of Alberta cities and towns at which sittings for the reception of evidence were held. The dates of each are given together with the names of Counsel appearing before the Commissioner on behalf of their clients. A verbatim report of the proceedings of these sittings, it is stated, is filed for reference with the Mines Branch of the Department of Lands and Mines, Edmonton.

Mention of the circulation of two questionnaires, to be answered respectively by operators and miners, follows with the information that answers thereto are filed with the other documents.

The balance of the Introductory Chapter refers to the changes which have taken place in Alberta's coal industry since 1925 and points to the fact that the present Enquiry is concerned mainly with the questions of marketing, regulation and social problems.

The chapter concludes with a statement of appreciation to all who have assisted in the Enquiry. To the names of officials already mentioned, the appreciation adds those of Miss Perkins, U.S. Secretary of Labour at Washington, Mr. H. B. Butler, Director of the International Labour Office at Geneva, and the staffs of their respective Departments, Mr. Howard Stutchbury, Alberta Trade Commissioner, his Assistant in Toronto, Mr. E. S. Clarry and Mr. C. K. Huckvale of the Audit Department, Government of the Province of Alberta.

The subjects dealt with in Chapters II to VII of the Report are as follows:

*Chapter II.*—RESOURCES AND DEVELOPMENT

1. Coal resources and Ownership.
2. Mining Development and Output
  - Estimated capacity of present Alberta Mines Output

3. Coal Utilization
  - Electrical Development
  - Carbonization
  - Hydrogenation

*Chapter III.—OPERATING CONDITIONS AND PRACTICE*

1. Equipment
2. Mining Practice

*Chapter IV.—CAPITALIZATION—PROFITS OR LOSSES—MANAGEMENT COSTS*

1. Capitalization
2. Aggregate Profits and Losses
3. Increase of Cost due to Lost Time
4. Conclusion

*Chapter V.—MARKETING*

1. Coal Consumption in Canada
2. General Survey of Alberta's markets
3. Railway Market
4. Market in Alberta; Competition from Gas
5. Markets in the Canadian provinces, dealt with individually
6. Market in the United States
7. Recommendations
8. Conclusion

*Chapter VI.—MINE WORKMEN AND LABOUR RELATIONS*

1. Composition of the working force
  - (i) Persons engaged
  - (ii) Too many workmen
2. Operators' Organizations: Recommendation
3. Labour Organizations
4. Wages and Working Conditions
  - Minimum Wage
  - Minimum Wage in Small Mines
  - Payment by Measurement or Weight
  - Wash-houses
5. Housing
6. Closed Camps
  - Access
  - Monopoly
  - Education
  - General
7. Workmen's Compensation
8. Unemployment Insurance
9. Mine Rescue Work—Recommendations
10. Miners' Certificates—Recommendation
11. Mining Industry Welfare Fund—Recommendation

*Chapter VII.—REGULATION*

1. Introduction
2. Germany, Great Britain, United States of America and Saskatchewan
  - (i) Germany
  - (ii) Great Britain
    - (a) Part I of the Coal-mines Regulation Act 1930
    - (b) Administration of Part I
      - Output and Quotas
      - Price Regulation
      - Central Selling Agency
    - (c) Part II of the Coal-mines Regulation Act 1930
      - Conclusion
  - (iii) United States of America
    - The Guffey Act
    - Appalachian Selling Agency
  - (iv) Saskatchewan
3. Legal Regulation in Canada generally
4. Legal Regulation in Alberta generally; and for the Coal Industry
  - Recommendations

5. Coal Conditions in Alberta Disorganized
  - Small Mines
  - Trucking
  - Trade Names
6. Efforts at Voluntary Organization in the Coal Industry
  - (i) Drumheller
  - (ii) Edmonton
  - (iii) Amalgamation
  - (iv) Unfair Practices
7. Organization in the future
8. Board to manage the Coal Industry not desirable
9. Control of Development—Regulation necessary—Recommendations
10. Need of a Code—Recommendations
  - (i) Code
  - (ii) Price Fixation
  - (iii) Minimum Wage
11. Quotas—Central Selling Agencies—Amalgamation
  - (i) Domestic Coal
    - (a) Quotas
    - (b) Central Selling Agencies
    - (c) Amalgamation
  - Recommendations
  - (ii) Steam Coal
    - (a) Irregular Employment
    - (b) Equipment
    - (c) Oil in Locomotives
    - (d) Closing Pits
    - (e) National Policy
    - (f) Conclusions

## APPENDICES

## I. Aggregate Profits and Losses

## II. Analyses of Coal

*Recommendations.*—The recommendations of the Report are given immediately prior to the first chapter.

Opening under the heading of the Ontario Market, the proposal for a continuation of subventions is made. Elaboration of the various points bearing relationship to such consideration follows.

The balance of this section of the Report makes detailed recommendations regarding the following subjects:

- Operators' Association
- Mine Rescue Work
- Miners' Certificates
- Mining Industry Welfare Fund
- Powers to be Transferred
- Control of Development
- Formulation of a Code
- Fixed Prices—Minimum Wage in small Mines
- Quotas—Central Selling Agencies
- Amalgamation

REPORT OF THE ROYAL COMMISSION TO INVESTIGATE  
CONDITIONS OF THE HALF-BREED POPULATION  
OF ALBERTA, 1936

## Commissioners

Hon. A. F. Ewing, Judge of the Supreme Court of Alberta  
J. M. Douglas, Stipendiary Magistrate for the Northwest Territories  
Dr. E. A. Braithwaite, Coroner and Inspector of Hospitals, Department of  
Public Health, Province of Alberta

## Secretary to the Commission

T. C. Rankine, Departmental Solicitor, Department of Lands and Mines

Under the chairmanship of the Hon. A. F. Ewing, Judge of the Supreme Court of Alberta, this Report, dated at Edmonton, February 15th, 1936, deals with an investigation into the conditions of the half-breed population of Alberta.

*Authorization.*—A Resolution of the Alberta Legislature dated February 27th, 1933, and an Order in Council dated December 12th, 1934, the latter containing appointment of the Commissioners, constitute the Authority for this Enquiry being held.

*Published Report.*—The Report covering the investigation is published in mimeographed form by the Department of Lands and Mines.

*Report of the Commission.*—The Report of the Commission gives a detailed account of the extensive investigation which was held.

Meetings took place in Edmonton and also at High Prairie, Lac la Biche, Goodfish Lake, Grand Cache, Chipewyan, Athabaska, Groff, Frog Lake and Marlboro.

A review of this situation and its long and interesting history of Alberta, dating almost to Confederation, is given. This review deals with the nomadic nature of the Metis people, who in lacking business foresight were vulnerable to the wiles and persuasions of speculators and others which resulted in the loss of their scrip.

The Report continues under the headings of health, education and general conditions and concludes with detailed recommendations.

#### REPORT OF THE ROYAL COMMISSION CONDUCTING ENQUIRY INTO THE COALHURST MINING DISASTER, ALBERTA, ON DECEMBER 9th, 1935

Commissioner

Hon. H. W. Lunney, Judge of the Supreme Court of Alberta

Under the Commissionership of the Hon. H. W. Lunney, Judge of the Supreme Court of Alberta, an Enquiry was conducted into the Coalhurst mining disaster which took place in the Imperial mine operated by the Lethbridge Collieries at Coalhurst, Alberta, on December 9th, 1935 at approximately 3.30 p.m.

*Authorization.*—Authorization for conducting this Enquiry is contained in an Order in Council of the Alberta Legislature dated January 14th, 1936.

*Published Report.*—The Report, dated April 14th, 1936, is published in mimeographed form by the Department of Lands and Mines.

*Report of the Enquiry.*—The Report of the Enquiry into the Coalhurst mining disaster in which the lives of sixteen men were lost opens with a description of events at the mine on the day the explosion took place, the number of men engaged in the day shift and their relative positions at the time of the accident.

Continuing, it goes exhaustively into an examination of everything in the nature of direct air currents, safety lamps, voltage of electricity used, etc., with a view to establishing a cause for the disaster.

The finding of the Commission points to evidence which 'clearly established that the explosion was caused by gas which had formed at the cave or over-cast, that the gas came from the old workings and the explosion may have occurred in the old workings or in the new workings.'

A transcript of the evidence and a list of the exhibits connected with this Enquiry are on file in the Court House at Lethbridge."

In the 1936-37 Report I prefaced my review of that particular period with an introduction which dealt with the surpluses acquired by this Department in the preceding years which dated back to its inception. I also included with this introduction a brief review touching on the natural resources of Alberta, of their vital importance to the people of this Province and the significance which must be attached to their very real value in the present and future economic life of the Dominion.

This introduction reads as follows:—

"For over thirty years, or to be more specific from September 1st, 1905, when the Province of Alberta was created, an insistent demand has been made at all times upon the federal government by the people of this province for the transfer and control of Alberta lands and minerals. A demand which was terminated by the agreement of December 14th, 1929.

At the time this agreement was made the Government of the day, patterning an administration upon the Department of the Interior, Ottawa, visualized that for at least five years no benefits of any importance would accrue to the people of Alberta. They were in fact convinced that an annual loss over this initial period would be experienced.

Notwithstanding these fears, however, the Department during its first six and a half years of existence has produced the following surpluses on income account:

	Surplus
*October 1st, 1930 to March 31st, 1931 (Latter half of fiscal year) .....	\$348,768.54
Fiscal Year 1931-32 .....	341,859.06
1932-33 .....	289,616.15
1933-34 .....	185,072.04
1934-35 .....	646,528.97
1935-36 .....	647,931.21
1936-37 .....	996,719.59

\*October 1st, 1930, date upon which the Department of Land and Mines was formed.

In the years immediately prior to the transfer the Department of the Interior sustained very considerable loss in their administration of these same resources and anyone sufficiently interested can find data in the annual reports of that Department or in the reports of the Auditor-General of Canada.

Changing from retrospect to the present and also future there are many points regarding the province's natural resources the discussion of which is not only of very real interest but of vital importance to the people of Alberta. Coal for example may well be cited as an outstanding if somewhat contentious subject.

The bulk of Canada's coal reserves, bituminous, sub-bituminous and lignite, are in this province. A noticeable percentage of the world's visible supply as a matter of fact is in Alberta and we are presumably assisted by a subvention freight rate to Ontario of \$2.50 per net ton where the ordinary rate is \$8.00 or over.

In spite of these factors, in 1935 we only shipped 64,659 tons of coal to Ontario when in the same year that province imported from the United States, in addition to shipments from Nova Scotia and New Brunswick, 10,840,950 tons.

Our shipments to Ontario in this particular year in comparison to these imports from the United States, on which tariffs up to 75c per ton were paid, represent an insignificant one-half of one per cent.

This illuminating and decidedly discouraging result, which is repeated year by year, is attributable solely to the fact that the subvention rate is not sufficient to enable Alberta coal to meet a competitive price in eastern Canada.

This revelation of course finishes at only one conclusion. A conclusion which shows that pending a fair and reasonable adjustment of this situation, Alberta, holding the bulk of Canada's coal reserves, must continue to be largely inactive regarding their development while eastern Canada continues to be supplied with her requirements from foreign countries.

Our known deposits of bituminous sands in the present accessible area have been estimated to contain over one billion barrels of oil, and two companies are at work to produce them commercially. In fact, before the advent of the Turner Valley crude oil discovery, it had been thought that our oil resources might be confined to recoveries from these deposits. The discovery of a crude oil field, however, in the south end of Turner Valley, introduced by the most successful completion of the Turner Valley Royalties well in the north-west quarter of section 28, township 18, range 2, west 5th meridian on June 16th, 1936, gave quite an impetus to oil-drilling operations throughout the province.

Early in 1936 the first step was taken by the amendment of the Petroleum and Natural Gas Regulations so that the amount expended in drilling operations, exclusive of the cost of machinery and casing employed, but including reasonable depreciation, would be established as a credit in the books of the Department and such expenditure used to satisfy the rental of the petroleum and natural gas locations held by the lessee. At the same time provision was made so that a lessee who had acquired the petroleum and natural gas rights in freehold land contiguous to his Crown lease could, by an arrangement with the Minister, consolidate his operations in respect to the whole by the installation of machinery and equipment on one or more of the locations forming a part of the group. Also, the area of the group or consolidation was enlarged to a maximum of 50,000 acres and even though the expenditures were made on freehold land it was permissible to establish a credit of an amount not exceeding 50% of the approved expenditures which could be used over a period of three years to the payment of rentals of petroleum and natural gas leases within the group upon which oil or natural gas in remunerative quantities had not been found.

An increase was granted also on account of excess expenditures, making the allowable 50% instead of 35%, and these concessions together with the action taken in March of the same year to rebate the royalty in the case of a discovery well situate in 'wild-cat' territory, all gave an assurance of the Government's intention to further the development of the natural resources.

At the same time as these concessions were being made in the leasing regulations a further encouragement was being given to companies to explore 'wild-cat' territory by the establishment of regulations for the issue of permits to prospect for petroleum and natural gas.

These permits could be taken out for six months upon payment of 5c for each acre covered by the application or for twelve months upon payment of 10c for each acre. Extensions of the permit were permissible under certain conditions upon payment of a monthly rental of 1c for each acre, but the work of the investigation had to be completed within the maximum of two years.

Under these amended regulations 585,882.78 acres were prospected during the period under review resulting in a total acreage of 776,505 being leased by the end of the year for actual drilling operations. It is anticipated with the very encouraging results so far obtained that many areas in addition to the Turner Valley will prove to contain crude oil.

At this juncture I would like to point out that while the development of the oil resources has unquestionably been the most spectacular section of our administration, it has by no means resulted in any lessening of effort to improve regulations for development of the other vast resources of the province. For this reason, therefore, it is of interest to inspect the work of the Department in its endeavour to encourage introduction of new capital with a view to the development of Alberta's great and widespread natural wealth."

To the above table showing annual departmental surpluses, the years 1937-38 and 1938-39 are added as follows:—

1937-38 .....	\$1,084,591.78
1938-39 .....	1,155,088.15

It will be noted from the above that the year 1937-38 demonstrated the largest surplus of all up to that time. This was achieved in spite of the fact that the Game and Fisheries Divisions were transferred in May, 1937 to the Department of Agriculture with the loss to this Department of the attendant revenues from each.

In 1937-38 the introductory comments of my Report dealt principally with the formation of The Petroleum and Natural Gas Conservation Board and the increased necessity for greater fire protection in the Province's forested areas, the total fire loss for this year and the year preceding being the greatest in the life of the Department.

The following reproduction from this Report is given:—

"Notwithstanding that the Game and Fisheries divisions were transferred in the month of May, 1937 to the Department of Agriculture, the revenue of our Department continued to increase, resulting in a surplus of \$1,084,591.78 in comparison with the previous year's profit of \$996,719.59. We anticipate that our profit in the coming year will be substantially greater by reason of the expansion of operations in the drilling for oil on provincial lands.

Dealing with the oil industry, the increase in production is worthy of our attention. The total production of oil for the year was 3,680,099 barrels as compared with 1,447,661 barrels in the fiscal year 1936-37, an increase of 2,232,438 barrels. Of this production the greater portion came from the southern Turner Valley on the western flank of the structure.

The attitude of the Department towards the wastage of gas is so well known that we merely make passing reference to the deplorable situation that is now about to be overcome. As our Departmental Report for the year 1932-33 shows, The Turner Valley Gas Conservation Board was appointed in April, 1932 to continue the tests our Petroleum and Natural Gas Division had been conducting for some years, also to suggest the adoption of production methods to minimize the wastage of gas. The Board's recommendations will be found in our Annual Report for the year that ended March 31st, 1933.

The opposition of many operators to any change in their methods nullified the work of the Board; however, with the completion of the Turner Valley Royalties crude oil discovery well in June, 1936, the majority of the operators as well as the citizens of the province became conscious of the fact that speedy action was essential if the oil resources of Alberta were to be a leader in the investment field of Canada.

Having decided that the wastage of gas must be discontinued, the Government sought the assistance of the Department of Mines, United States of America, Washington, D.C., in selecting competent conservation engineers, and as a result Mr. W. F. Knode, of the firm of Messrs. Parker, Foran, Knode

and Boatright, of Corpus Christi, Texas, came to Edmonton and assisted with the drafting of legislation for the bringing into force of proper operating methods. The legislation made provision for a Board with power to conserve the oil and gas resources of Alberta, but some question was raised later as to the validity of the Act. To remove any doubt the Legislature was called into special session and as a result of their deliberation a new Act—'An Act for the Conservation of the Oil and Gas Resources of the Province of Alberta'—was assented to November 22nd, 1938. A copy of the Act immediately follows this section of the Report.

The development of the mineral resources has been left to private enterprise, the Department taking from production a reasonable share of gross revenue. In the opinion of many authorities this procedure is the more preferable way as such action tends to a more rapid type of development and gives to the province a fair revenue.

As to the settlement of lands in the province, we have refrained from granting homesteads in many areas where it was doubtful that the lands were capable of sustaining a settler. Consequently, the time is not far distant when a change may have to be made in the system that has been followed in placing settlers on land.

With the exception of the fiscal year 1935-36, the year under review shows the greatest number of land patents issued together with the largest area covered thereby since the transfer of the natural resources to this province. The number in question for this year totalled 2,266 covering an area of 382,382.437 acres as compared with the peak year of 1935-36 which totalled 2,965 with an area of 433,529.126 acres.

Included with the Technical Division's section of this Report is a chart showing the total area of acres patented in the province from October 1st, 1930, date of the natural resources transfer, to March 31st, 1938. During this seven and a half year period 12,641 land patents have been issued which cover an area of 1,924,694.314 acres.

Also included in this section of the Report it will be noted that reference is made to the fact that completion of the boundary between Alberta and Saskatchewan from the south shore of Lake Athabaska to the northern boundary of the province is being carried out.

It is necessary to refer to the Forestry section of this Report in connection with the devastating forest fires which occurred during the calendar year of 1937.

Total loss of timber, young growth and other property for the year came to \$1,088,465.95, the worst period since the transfer of the resources with the exception of the preceding year, 1936, when the loss totalled \$1,549,930.30. By a strange coincidence the fires in 1937 were mainly outside the forest reserves—chiefly in the northern part of the province—whereas in 1936 they were mainly inside the reserves along the general area of the Rocky Mountains.

The seriousness of the situation is shown in the Director's report by the revelation that from the season of 1931 to the conclusion of the 1937 season there have been 2,249 forest fires which burnt over an area in excess of 1,939,661 acres, of which 1,404,859 acres carried tree growth. This latter area supporting tree growth would measure, if in a solid block, approximately 50 miles in length by 22 miles in width. The loss of timber, young growth and other property over this period of years reveals the alarming total of \$4,074,377.36 as shown in an itemized statement of this Report.

It has been repeatedly stated that Alberta's forests represent indirectly her most important resource. With the loss of vast blocks of growing timber



comes a shortage of water supply, not only to this province, but to others lying to the east of us. Forest cover conserves and regulates more than anything else the streamflow of rivers. With the loss of this flow, animal and fish life dies, a menace arises to sanitation in towns and cities, industrial life is handicapped and the final result is drought with intermittent floods.

Conservation of timber is of primary importance to the general life of this province and it will be imperative, if the present situation is to be changed, that not only must the personnel of the Forestry staff be considerably augmented but also that the present equipment be renewed and added to on a scale sufficiently generous to ensure that the dangerous situation which exists may be noticeably reduced."

On page 19 of the 1937-38 Report is given a reproduction in full of The Oil and Gas Resources Conservation Act, 1938. Copies of this Act, or the Annual Report in question which contains it, are available on application to the Department.

The foregoing review gives a summary of events covering a period of the first eight and a half years of this Department's administration and brings my review up to the current year, 1938-39, the Report for which is herewith presented.

In this present period it is necessary to emphasize once again the vital need for further protective measures covering the forested areas of Alberta. The present year presents the most devastating fire loss—\$2,046,236.27—experienced yet in the Department's history. The Director of Forestry in his section of the Report gives a clear picture of this unfortunate loss and offers in detail the remedies necessary to meet the problem. The loss this year was almost entirely outside the provincial forest reserves and confined to the vast and thinly populated areas of the northern part of the Province.

Oil production in 1938-39 reached the highest annual total yet known of 6,651,321 barrels. The supply to an extended market, covering the majority of western Canada, was carried out for the first time. If a further extension to this market could have materialized during this period, the production total, without any danger to the general question of conservation, could have been a very much greater one.

Alberta, in the expansion of this new and extremely important industry, has come to a definite problem which can be solved only by an enlargement of market which will permit Alberta oil to compete over a wider area.

The development of Turner Valley this year has been intensive as demonstrated by the very noticeable increase of producing wells. Development of other fields has also kept pace with this activity. It is of first importance that this great industrial progression, so necessary now to both the Dominion and the Empire, should not be checked by a surplus of product vainly seeking a more extended market.

During this year Alberta placed the Dominion in the position of second largest oil producer in the British Empire, tied with Burma and Bahrein Island in the Persian Gulf.

Also in this year, amongst the 19 countries of the world to show increases in oil production, Canada took third place. Russia was first with 10,818,000 barrels, Venezuela second with 4,741,000 and Canada third with 4,000,289 barrels. Practically half of the Empire's total increase of 8,087,824 barrels for the calendar year 1938 was produced by Canada. Alberta produced 97.09 per cent of Canada's total and Alberta's source of supply for this period was almost entirely the southern section of the Turner Valley field.

## DEPARTMENT'S REVENUE AND PRODUCTION, 1938-39

Revenue for the fiscal year under review, 1938-39, amounted to \$1,864,712.75, the highest of any year since the creation of this Department and showing an increase over the previous year of \$258,556.25. Expenditure for the year totalled \$709,624.60, an increase of \$188,059.88. The principal cause of this increase of expenditure was due to the increased heavy fire fighting costs which amounted to \$156,880.28, together with \$21,702.97, representing administration cost of the Special Areas Board, which was transferred to this Department in April, 1938. An itemized statement, showing revenue increases and decreases, is given on the first page of the Accounting Division's section of this Report. Income revenue covering fees, rentals, bonuses and royalties covering development of the non-metallic minerals showed an increase of \$317,176.91.

Petroleum production showed once again a very noticeable increase with 2,971,222 barrels in excess of last year's figure. This was due to new wells continually being brought into production in the crude oil zone of Turner Valley which, under control of a moderate but safe quota, supplied for the first time the new market area of eastern British Columbia, Alberta, Saskatchewan and the greater part of Manitoba.

Gas consumption decreased 3,585,367 Mcf due to small decreases in deliveries to the Calgary-Lethbridge system and Medicine Hat resulting from weather conditions and their effect on heating problems. Fuel for drilling in Turner Valley was considerably lower than in the previous year and storage of gas in Bow Island ceased early in February, 1939, two other factors accounting for the decrease in total of consumption.

Coal produced during the calendar year, 1938 showed a decrease of 321,657 tons in comparison with the calendar year 1937. Coke production over the same period increased by 2,725 tons and briquettes by 12,195 tons. Electrical power used in the operation of coal-mines during the year decreased by 871,829 k.w. hrs.

Shale mined during the calendar year decreased by 7,215 tons with a decrease of 2,337,480 bricks manufactured therefrom; cement production increased by 37,267 barrels, and lime by 1,402 tons.

At the close of the year under review the Technical Division reported a total of 2,874 land patents issued, covering an area of 517,435.896 acres. This represents the greatest area patented by the Crown since the creation of this Department and the second largest number of land patents issued within this period.

The peak year in total number of patents was that of 1935-36 which totalled 2,965 with an area of 433,529.126 acres.

As in the previous Report a chart is included in the Technical Division's section which shows the total area of acres patented in the Province from October 1st, 1930, date of the natural resources transfer, to March 31st, 1939. During this eight and a half year period 15,515 land patents have been issued which covered an area of 2,442,130.210 acres.

## PROVINCIAL AND SCHOOL LANDS ADMINISTRATION

The School Lands Division of this Department was on May 1st, 1938 amalgamated with the Provincial Lands Division, the control of the two Divisions coming under the Director of Lands.

*Homestead Entries.*—First and second homestead entries and soldier grants during the year totalled 1,353 covering approximately 216,480 acres in comparison with 1,600 covering approximately 256,000 acres for the preceding year.

Comparative statement follows showing totals of homestead entries and soldier grants from 1930-31 to 1938-39. Fuller details of this information appear

in the Accounting Division's section of this Report, Statement G, and in similar sections of the Departmental Annual Reports of preceding years.

## HOMESTEAD ENTRIES GRANTED

Fiscal Year	Homesteads	Second Homesteads	Soldier Grants	Total	Homesteads Granted to Women
1930-31 .....	3,042	557	149	3,748	.....
1931-32 .....	3,876	522	30	4,428	1,521
1932-33 .....	3,112	358	29	3,499	976
1933-34 .....	2,984	696	26	3,706	1,011
1934-35 .....	2,425	325	30	2,780	835
1935-36 .....	1,329	186	13	1,528	455
1936-37 .....	1,296	129	7	1,432	479
1937-38 .....	1,479	111	10	1,600	585
1938-39 .....	1,277	73	3	1,353	513
Totals.....	20,820	2,957	297	24,074	6,375

Decreases this year in comparison with last ..... 202 38 7 247 72

NOTE.—Homesteads for women were not available until 1932. The total number of women's homesteads as shown in the above statement is included in the first homestead total.

*Discontinuance of Homesteads.*—On March 24th, 1939, the right to secure first homesteads, second homesteads or soldier grants was withdrawn, together with the right to make application for homestead cancellation.

Details in connection with this regulation, together with information on other subjects pertaining to the administration of provincial and school lands are given in the Director of Lands' section of this Report.

## MINING LANDS ADMINISTRATION

*Introduction to Report.*—Introduction to the Report of the Mining Lands Division gives production quantities of the Alberta non-metallic minerals for the year and their respective values, methods for disposal of mineral rights, sources of revenue—fees, rentals, bonuses and royalties—and information regarding reservations of large areas for geological examination.

*Leases dealt with.*—Statements showing types of leases, dating from October 1st, 1930, to March 31st, 1939—active at date of transfer, issued, divided, cancelled, renewed and active at the close of the period under review—are also given. The leases deal with the development of petroleum, natural gas, coal, quarrying, quartz mining, salt, bituminous sands and dredging.

Totals of leases from October 1st, 1930—date of the natural resources transfer—to March 31st, 1939 are shown as follows:—Leases active at date of transfer, 19,635; issued, 7,872; divided, 184; cancelled, 21,483; renewed, 250; active at March 31st, 1939, 5,958. Areas covered by same are given in a separate statement. Additional statements deal with permits to prospect, reservations issued, and fees, rentals, bonuses and royalties collected.

*Coal.*—As in previous years a table showing royalties collected on coal is given. The table is dated from the fiscal year 1907-08 to 1938-39.

*Revenue.*—Income revenue credited to the Division for this year totalled \$1,210,765.48, showing an increase of \$317,176.91 over the previous year.

## PETROLEUM AND NATURAL GAS

The section of the Report devoted to petroleum and natural gas deals in its introductory remarks with the rapid progress made during the year in the development of the Turner Valley field, together with the increased prospecting work which was accomplished in other parts of the Province.

Reference to the importance which must necessarily be attached to the introduction of The Petroleum and Natural Gas Conservation Board, created during the year, is made. The Act, by control of which the Board functions, is referred to—its introduction in April, 1938 and its subsequent repeal and re-enactment in

November, 1938—and the wide powers which it gave for the control and regulation of well-drilling and production in the producing oil zone with the object of establishing conservation of the petroleum and gas resources of the Province.

Reference is made to a Royal Commission which opened sittings in November, 1938 and its examination of many phases which covered the production and marketing of oil.

During this period a Schedule of Wells drilled in Alberta for oil and gas to 1938 was published—late in 1938. Data in this work gives reference to casings, water occurrences, gas and oil and a summary of geological markers for each individual well.

Drilling activity outside of Turner Valley is reviewed and a summary covering each area in which operations were conducted throughout the year is included.

Other material relative to a detailed list of Turner Valley completions, divisional inspection of wells, work of the geological and chemical laboratories and analyses of Turner Valley crude oils is also presented.

#### ALBERTA OIL PRODUCTION BY FISCAL YEARS

Period	Barrels	Period	Barrels
1914 to close of fiscal year,		Fiscal year 1934-35.....	1,246,958
1928-29.....	1,453,404	1935-36.....	1,249,596
Fiscal year, 1929-30.....	1,135,014	1936-37.....	1,447,661
1930-31.....	1,614,202	1937-38.....	3,680,099
1931-32.....	1,246,328	1938-39.....	6,651,321
1932-33.....	871,082		
1933-34.....	1,141,473	Total.....	21,737,138
		Increase this year in comparison with last.....	2,971,222

#### ALBERTA OIL PRODUCTION BY CALENDAR YEARS

Calendar Year	Barrels	Calendar Year	Barrels
1914 to 1924.....	96,504	1933.....	1,013,040
1925.....	168,643	1934.....	1,265,940
1926.....	219,598	1935.....	1,263,750
1927.....	332,133	1936.....	1,320,442
1928.....	489,531	1937.....	2,796,908
1929.....	999,152	1938.....	6,742,039
1930.....	1,433,844		
1931.....	1,455,195	Total.....	20,514,341
1932.....	917,622		
		Increase this year in comparison with last.....	3,945,131

#### NATURAL GAS CONSUMPTION

Fiscal Year	Mcf.
1929-30.....	23,228,637
1930-31.....	23,312,006
1931-32.....	18,327,139
1932-33.....	16,061,383
1933-34.....	16,346,376
1934-35.....	16,600,059
1935-36.....	18,674,944
1936-37.....	18,727,496
1937-38.....	29,212,267
1938-39.....	23,626,900
Total.....	206,117,207
Decrease this year in comparison with last.....	3,585,367

#### COAL

Alberta coal production for the calendar year, 1938 totalled 5,230,025 tons with a valuation of \$13,702,983.41, a decrease of 321,657 tons in comparison with the preceding year. Coal mined by farmers under permit for their own use amounted to 585 tons. This figure is not included in the yearly production total just given. As in the previous year a considerable tonnage was produced without either permit or lease of which there is no record.

Production of coke for the calendar year, 1938 increased by 2,725 tons and of briquettes by 12,195 tons.

*Disposition of Coal in 1938.*—Coal sold for consumption in Alberta totalled 1,278,932 tons; sold for consumption in other provinces of Canada, 1,737,499

tons; sold for consumption in the United States, 32,507 tons; sold to railway companies for locomotive use, 1,871,852 tons; used in making briquettes, 39,302 tons; used for making coke, 103,498 tons; used under colliery boilers, 136,833 tons; used by colliery railways, 6,240 tons; put to stock 44,659 tons and put to waste, 36,173 tons. The above tonnages include coal lifted from stock and waste heaps, which is not included in the total output.

## COAL PRODUCTION

Calendar Year	Tonnage	Valuation
1930 .....	5,755,911	\$19,379,000.00
1931 .....	4,564,290	13,415,745.00
1932 .....	4,870,030	13,441,193.00
1933 .....	4,714,784	12,197,339.00
1934 .....	4,748,848	12,440,616.53
1935 .....	5,462,973	13,946,338.15
1936 .....	5,696,375	14,720,004.06
1937 .....	5,551,682	14,434,969.75
1938 .....	5,230,025	13,702,983.41
<b>TOTALS</b> .....	<b>46,594,918</b>	<b>\$127,678,188.90</b>
Decreases this year in comparison with last .....	321,657	\$ 731,986.34

## PRODUCTION OF COKE AND BRIQUETTES

Calendar Year	Coke (Tons)	Briquettes (Tons)
1930 .....	.....	24,111
1931 .....	.....	15,102
1932 .....	2,183	13,582
1933 .....	49,279	16,104
1934 .....	59,703	15,906
1935 .....	63,428	18,812
1936 .....	65,239	21,015
1937 .....	65,967	27,044
1938 .....	68,692	39,239
<b>TOTALS</b> .....	<b>374,491</b>	<b>190,915</b>
Increases this year in comparison with last .....	2,725	12,195

*Disposition of Electrical Power for Alberta coal-mines in 1938.*—Purchased electrical power used by Alberta coal-mines during the calendar year, 1938 totalled 24,611,920 k.w.hrs.

## ELECTRICAL POWER USED FOR OPERATION OF ALBERTA COAL-MINES

Calendar Year	K.w.hrs.
1930 .....	25,003,606
1931 .....	16,918,625
1932 .....	14,875,890
1933 .....	17,611,959
1934 .....	19,447,621
1935 .....	23,111,373
1936 .....	24,912,243
1937 .....	25,483,749
1938 .....	24,611,920
<b>TOTAL</b> .....	<b>191,976,986</b>
Decrease this year in comparison with last .....	871,829

## SHALE AND CLAY MINED

During the calendar year, 1938 there were four shale pits in operation. Production from same totalled 19,929 tons of shale from which 7,609,314 bricks and 1,640 tons of hollow tile were manufactured.

Calendar Year	Shale Mined (Tons)	Bricks Manufactured (Number)	Tiles Manufactured (Tons)
1930 .....	67,517	22,007,045	.....
1931 .....	23,855	7,091,080	2,825
1932 .....	8,446	3,444,010	182
1933 .....	3,234	1,221,060	.....
1934 .....	13,561	4,398,032	1,171
1935 .....	20,258	7,349,300	.....
1936 .....	24,588	8,963,384	.....
1937 .....	27,144	9,946,794	252
1938 .....	19,929	7,609,314	1,640
<b>TOTALS</b> .....	<b>208,532</b>	<b>72,030,019</b>	<b>6,070</b>
Decrease .....	Decrease	Decrease	Increase
This year in comparison with last .....	7,215	2,337,480	1,388

*Mines Branch Annual Report.*—Statistical information covering Alberta's coal-mining activities and production of shale and clay mined for the calendar year, 1938 is given in complete detail in the published Annual Report of the Mines Branch, Department of Lands and Mines, for this period which appears as a separate publication to this Report.

#### FOREST SERVICE

*Fire Season.*—The seriousness of the fire situation this year has already been mentioned. The total loss, \$2,046,236.27, is the greatest yet experienced by this Department and it is only to be hoped that a repetition of this disastrous occurrence will not be known.

On the following page is given the summary of fire losses showing annual figures since the transfer of the resources. This statement is a condensed form of the larger and more detailed one which appears each year in the Forestry Section of the Report.

The statement on the next page supplies information covering numbers of fires, areas affected, salvable and unsalvable timber, suppression costs and total loss. Suppression cost during the life of the Department now reaches a total of \$589,904.46 and total loss from fires over this period, \$6,120,613.63.

As previously stated the fires this year were almost entirely outside the forest reserves and confined to northern Alberta. Last year the situation was very similar in that the various conflagrations took place mostly outside the reserves, although the year prior to that the bulk of the fires took place within them.

*Timber Industry.*—The lessened demand for lumber at the close of the previous year resulted in a reduction of over seventeen per cent in lumber manufacture for the year under review with little hope at the present time of an increase in demand for either export or local needs. The exception to this depressed situation was the recovery in the manufacture of railway ties, the increase in which was the same percentage figure as that of the lumber manufacture's decrease. Contract prices on railway ties showed no change.

*Grazing on Forest Reserves.*—Grazing on forest reserves showed both increases and decreases for the year. The number of grazing permits issued were decreased by 92; cattle increased by 3,359; horses decreased by 394, and sheep increased by 1,617.

*Youth Forestry Training Project.*—The camp on the Highwood River continued the work of the previous year in giving training to unemployed young men and supplying them with knowledge in elementary forestry.

The project is entered into jointly by the Dominion and the Province and is proving of real benefit in fitting unemployed youth with technical training with a view to future permanent employment either in forestry or in industries directly connected with same.

## SUMMARY OF FIRE LOSSES WITHIN ALBERTA FOREST RESERVES

Period	Number of Fires	Cost of Suppression	Area (Acres)	Salvable Timber M.f.b.m.	Salvable Timber (Cords)	Unsalvable Timber M.f.b.m.	Unsalvable Timber (Cords)	Total Loss
October 1, 1930 to March 31, 1931	9	\$ 551.67	41,925			2.00	129.00	\$ 71.69
April 1, 1931 to December 31, 1931	31	17,624.12	52,218.05	2,370.50	3,086	6,295.73	111,599.00	154,651.47
Calendar Year 1932	32	3,491.04	2,555.75	8.00	15,863	3,845.00	1,005.60	8,790.73
Calendar Year 1933	39	18,409.92	29,275.88	26.75	1,201	19,188.25	108,414.00	95,796.93
Calendar Year 1934	47	31,118.51	21,963.00	1,510.00	9,200	2,661.00	209,550.00	96,195.87
Calendar Year 1935	12	94.56	6.50				60.00	45.50
Calendar Year 1936	52	108,894.48	165,465.00	7,573.00		885,192.00	764,594.00	1,504,273.45
Calendar Year 1937	17	387.38	90.00			37,500.00	8.50	292.05
Calendar Year 1938	18	9,422.79	13,111.50	13,740.00		518.50	1.50	36,556.45
TOTALS	257	\$189,994.47	284,727.605	25,228.25	29,380	955,202.48	1,195,361.60	\$1,896,674.14

## SUMMARY OF FIRE LOSSES OUTSIDE ALBERTA FOREST RESERVES

Period	Number of Fires	Cost of Suppression	Area (Acres)	Salvable Timber M.f.b.m.	Salvable Timber (Cords)	Unsalvable Timber M.f.b.m.	Unsalvable Timber (Cords)	Total Loss
October 1, 1930 to March 31, 1931	47	\$ 686.64	11,145.19	155.00		3.75	684,625.50	\$ 79,950.85
April 1, 1931 to December 31, 1931	591	82,088.89	552,658.07	134,536.00	104,199.00	122,690.50	712,835.79	712,835.79
Calendar Year 1932	347	15,320.51	133,562.14	274.75	12,215.00	40,627.15	132,743.00	152,085.58
Calendar Year 1933	249	16,971.75	64,489.12	4,383.50	3,404.50	13,953.50	35,543.00	100,008.43
Calendar Year 1934	193	7,050.51	36,907.00	3,604.50	3,159.00	547.50	14,464.00	29,825.77
Calendar Year 1935	85	1,558.90	6,313.25	160.00	1,195.00	1,513.00	5,371.00	5,722.50
Calendar Year 1936	196	13,647.81	38,989.00	2,374.00	23,116.00	659.00	6,017.00	45,656.85
Calendar Year 1937	358	54,952.28	835,169.00	14,702.00	33,113.00	251,544.00	609,837.00	1,088,173.90
Calendar Year 1938	503	207,632.70	1,743,234.00	35,382.50	23,054.00	650,844.50	1,974,651.50	2,009,679.82
TOTALS	2,569	\$399,909.99	3,424,466.77	195,372.25	214,004.50	1,110,123.90	3,487,254.00	\$4,223,939.49

## SUMMARY OF FIRE LOSSES WITHIN AND OUTSIDE ALBERTA FOREST RESERVES

Period	Number of Fires	Cost of Suppression	Area (Acres)	Salvable Timber M.f.b.m.	Salvable Timber (Cords)	Unsalvable Timber M.f.b.m.	Unsalvable Timber (Cords)	Total Loss
October 1, 1930 to March 31, 1931	56	\$ 1,238.31	11,187.115	155.00		5.75	129.00	\$ 80,022.54
April 1, 1931 to December 31, 1931	622	99,713.01	604,876.12	136,906.50	107,285.00	128,986.23	796,224.50	867,487.26
Calendar Year 1932	379	18,811.55	136,117.89	282.75	28,078.00	44,472.15	133,748.60	160,876.31
Calendar Year 1933	288	35,381.67	93,765.00	4,410.25	15,154.50	60,882.75	167,959.00	195,805.36
Calendar Year 1934	240	38,169.02	58,870.00	4,914.50	12,359.00	3,208.00	224,014.00	126,021.64
Calendar Year 1935	97	1,653.46	6,319.75	160.00	1,195.00	1,513.00	5,431.00	5,768.00
Calendar Year 1936	248	122,542.29	204,454.00	9,947.00	33,141.00	885,851.00	770,611.00	1,549,930.30
Calendar Year 1937	375	55,339.66	835,259.00	14,702.00	33,113.00	289,044.00	609,845.50	1,088,465.95
Calendar Year 1938	521	217,055.49	1,758,345.50	49,122.50	23,059.00	651,363.00	1,974,653.00	2,046,236.27
TOTALS	2,826	\$589,904.46	3,709,194.375	220,600.50	243,384.50	2,063,326.38	4,682,615.60	\$6,120,613.63

## TECHNICAL DIVISION

*Issue of Notifications (Land Patents).*—As already stated, the present year under review shows the greatest area patented in any year since the formation of this Department. In number of land patents issued the year 1935-36 comes first with a total of 2,965, with the present year second with 2,874.

The following comparative statement gives totals by fiscal years from 1930-31 to 1938-39:

## NOTIFICATIONS ISSUED

Fiscal Year	Number of Notifications	Area, Acres
1930-31 .....	23	3,019.710
1931-32 .....	784	111,424.478
1932-33 .....	1,260	178,887.233
1933-34 .....	1,106	165,224.553
1934-35 .....	2,006	324,611.398
1935-36 .....	2,965	433,529.126
1936-37 .....	2,231	325,615.379
1937-38 .....	2,266	382,382.437
1938-39 .....	2,874	517,435.896
Totals.....	15,515	2,442,130.210
Increases this year in comparison with last.....	608	135,053.459

*Lands transferred from the Dominion to the Province.*—Lands transferred to the Province from the Dominion Government during this period included Wawaskey National Park, Elk Island Park and Cooking Lake Forest Reserve, Admiralty and Ordnance lands and lands of the Soldier Settlement Board.

*Wharf and Shipyard Sites.*—An area of 2.27 acres for the maintenance of a wharf-site at Sylvan Lake was set apart and the leasing of 15.32 acres near McMurray for a shipyard-site to the Hudson's Bay Company was effected. Also under this heading, an area of 1.29 acres was reserved unto the Dominion Government for the erection of a pier at Ma-me-o Beach, Pigeon Lake.

*Metis Colonies.*—The dedication of certain areas considered suitable for the settlement of members of any Metis association was brought into effect by orders in council. The colonies in question are described in detail in the report of the Technical Division.

*New Surveys.*—Information dealing with new surveys, completed and under way, is given in detail by the Division.

*New Maps.*—New maps prepared during the year dealt with available school lands, Turner Valley oil area showing the location of producing wells and special areas. Good progress was made on the natural resources map which was well advanced in general detail by the close of the year.

The disposal of maps from the Technical Division is increasing. Distribution is made continually from the office to various Government Departments and to the general public and also by mail over a wide area.

## STAFF

I would like once again to express my appreciation to all members of the staff of this Department for their loyalty and for their intensive application to their many responsible duties.

Individual detailed reports from the various Divisions of the Department follow.

Your obedient servant,

J. HARVIE,  
Deputy Minister.

Edmonton, December 6th, 1939.



1939

## Chapter 34

## An Act to Amend and Consolidate the Special Areas Act, 1938

(Assented to March 31, 1939.)

**H**IS MAJESTY, by and with the advice and consent of the Legislative Assembly of the Province of Alberta, enacts as follows:

1. This Act may be cited as "*The Special Areas Act, 1939.*" Short title
2. In this Act, unless the context otherwise requires,— Definitions
  - (a) "Board" means the Special Areas Board appointed pursuant to this Act; "Board"
  - (b) "Department" means the Department of Lands and Mines; "Department"
  - (c) "Land" includes in addition to its ordinary meaning buildings and improvements thereon, but does not include any minerals therein or thereunder; "Land"
  - (d) "Minister" means the Minister of Lands and Mines; "Minister"
  - (e) "Municipality" means any municipal district or improvement district or part thereof included in a Special Area; "Municipality"
  - (f) "Person" includes a partnership or corporation; "Person"
  - (g) "Public Lands" means unsubdivided lands situated in a Special Area which have been transferred to the Crown under the provisions of this Act, or which are Provincial lands or school lands within the meaning of *The Provincial Lands Act, 1931*, or which are designated as Public Lands pursuant to any provisions of this Act; "Public lands"
  - (h) "Ratepayer" means the person with the right of possession of land and includes any lessee of public lands; "Ratepayer"
  - (i) "Special Area" means any Special Area constituted under the authority of this Act and includes Tilley East, Berry Creek, Sounding Creek, Sullivan Lake, Neutral Hills and Bow West, now constituted as Special Municipal Areas; "Special Area"
  - (j) "Unsubdivided Lands" means all land other than and except land subdivided into lots and blocks as a townsite, a plan of which is registered in a Land Titles Office. "Unsubdivided Lands"

3. Each of the areas in the Province next hereinafter described is hereby constituted as a Special Area; the area first so described shall be known as The Tilley East Special Area, the area secondly so described shall be known as The Berry Creek-Sullivan Lake Special Area, the area thirdly so described shall be known as The Sounding Creek-Neutral Hills Special Area, and the area fourthly so described shall be known as The Bow West Special Area. Constitution of Special Areas

The description of the areas hereinbefore mentioned is as follows:

#### 1.—THE TILLEY EAST SPECIAL AREA.

All that part of the Province of Alberta except so much thereof as is included within the corporate boundaries of any town or village, described as follows: Tilley East Special Area

Commencing at the north-east corner of township 12, range 1, west of the 4th meridian; thence northerly along the said 4th meridian to its intersection with the left bank of the Red Deer River, in township 23; thence in a generally westerly direction along the said left bank to its intersection with the range line between ranges 10 and 11 in township 21; thence southerly along the road allowance between the said ranges to the south-east corner of township 14, range 11; thence westerly along the road allowance between townships 13 and 14 to the intersection of the said road allowance with the left bank of the Bow River; thence in a generally southerly and westerly direction along the left bank of the Bow River and continuing to township 11, range 13; thence in a generally easterly and northerly direction along the left bank of the Saskatchewan River to the intersection of the said bank with the east boundary of section 34, township 12, range 6; thence northerly to the south-east corner of the north-east quarter of the said section; thence westerly to the south-west corner thereof; thence northerly along the west boundary of the north-east quarter to the south boundary of section 3, township 13, range 6; thence easterly along the south boundary of sections 3 and 2 in the said township to the south-east corner of section 2; thence northerly along the east boundary of section 2 to the north-east corner of the south-east quarter of the said section; thence easterly along the south boundary of the north half of section 1, township 13, range 6, and along the south boundary of the north half of sections 5 and 6, township 13, range 5, to the intersection of the said boundary with the left bank of the South Saskatchewan River; thence southerly along the said left bank to the intersection of the bank with the road allowance between townships 12 and 13; thence easterly along the said road allowance to the point of commencement, all west of the 4th meridian.

## 2.—BERRY CREEK-SULLIVAN LAKE SPECIAL AREA

Berry Creek-  
Sullivan Lake  
Special Area

All that part of the Province except so much thereof as is included within the corporate boundaries of any town or village, described as follows:

Commencing at the north-east corner of township 37, range 8, west of the 4th meridian; thence westerly along the road allowance between townships 37 and 38, to the road allowance between ranges 9 and 10; thence southerly along the said road allowance to the south-east corner of township 35, range 10; thence westerly along the road allowance between townships 34 and 35 to the intersection of the road allowance with the east shore of Sullivan Lake; thence southerly and westerly along the said shore of Sullivan Lake to the north-west corner of township 33, range 14, west of the 4th meridian; thence westerly along the road allowance between townships 33 and 34 to the north-west corner of township 33, range 15, west of the 4th meridian; thence southerly along the road allowance between ranges 15 and 16 to the south-west corner of township 31, range 15, west of the 4th meridian; thence westerly along the road allowance between townships 30 and 31 to the north-west corner of township 30, range 16, west of the 4th meridian; thence southerly along the road allowance between ranges 16 and 17 to the south-west corner of township 29, range 16, west of the 4th meridian; thence westerly along the road allowance between townships 28 and 29 to the north-

west corner of township 28, range 18, west of the 4th meridian; thence southerly along the road allowance between ranges 18 and 19 to the south-west corner of section 19, township 28, range 18, west of the 4th meridian; thence easterly along the south boundary of the said section 19 to the north-west corner of section 17, township 28, range 18, west of the 4th meridian; thence southerly along the west boundary of sections 17 and 8 of the said township to the south-west corner of section 8; thence easterly along the south boundary of sections 8 and 9 to the north-west corner of the north-east quarter of section 4 of the said township; thence southerly along the west boundary of the east half of the said section 4 to the south-west corner of the south-east quarter of the said section; thence easterly to the south-east corner of the said section; thence southerly along the west boundary of section 34, township 27, range 18, west of the 4th meridian to the south-west corner of the north-west quarter of section 34; thence easterly along the south boundary of the north-west quarter of the said section to the south-east corner thereof; thence southerly along the west boundary of the east halves of sections 34, 27 and 22, township 27, range 18, west of the 4th meridian to the intersection of the said boundary with the left bank of the Red Deer River; thence southerly and easterly along the sinuosities of the said bank to the intersection of the said bank with the range line between ranges 7 and 8; thence northerly along the said range line between ranges 7 and 8, to the point of commencement.

### 3.—THE SOUNDING CREEK-NEUTRAL HILLS SPECIAL AREA

All that part of the Province excepting so much thereof as is included within the corporate boundaries of any town or village described as follows:

Sounding  
Creek-Neutral  
Hills Special  
Area

Commencing at the north-east corner of township 35, range 1, west of the 4th meridian; thence westerly along the road allowance between townships 35 and 36 to the north-west corner of township 35, range 3; thence northerly along the road allowance between ranges 3 and 4 to the north-west corner of township 37, range 3; thence westerly along the road allowance between townships 37 and 38 to the north-west corner of township 37, range 7; thence southerly along the range line between ranges 7 and 8 to the intersection of the said range line with the left bank of the Red Deer River in township 23; thence in a generally easterly direction along the said left bank of the Red Deer River to the intersection with the east boundary of section 13 in township 23, range 4; thence northerly along the road allowance between ranges 3 and 4 to the north-west corner of township 26, range 3; thence easterly along the road allowance between townships 26 and 27 to the intersection with the 4th meridian; thence northerly and along the said 4th meridian to the point of commencement; all west of the 4th meridian.

### 4.—THE BOW WEST SPECIAL AREA

All that part of the Province except so much thereof as is included within the corporate boundaries of any town or village described as follows:

Bow West  
Special Area

Commencing at the south-east corner of township 12, range 17, west of the 4th meridian; thence northerly along the range line between ranges 16 and 17 to the intersection with the north boundary

of township 14; thence easterly along the north boundary of township 14 to the intersection with the right bank of the Bow River; thence in a generally north-westerly direction upstream along the said right bank of the Bow River to the intersection with a line dividing the north and south halves of township 20, in range 19; thence westerly along the said divided line and continuing westerly to the intersection with the range line between ranges 20 and 21; thence southerly along the said range line between ranges 20 and 21 to the north boundary of township 16; thence westerly along the said north boundary of township 16 to the intersection with the range line between ranges 21 and 22; thence southerly along the said range line between ranges 21 and 22 to the north boundary of township 13; thence easterly along the said north boundary of township 13 to the north-east corner of section 32, township 13, range 20; thence southerly along the east boundary of the said section 32 to the south-east corner of the north-east quarter of the said section 32; thence westerly along the south boundary of the north half of section 32 to the south-west corner of the north-west quarter of section 32; thence southerly along the west boundary of the south-west quarter of section 32 to the south-west corner thereof; thence westerly along the south boundary of the south-east quarter of section 31 to the south-west corner thereof; thence southerly along the west boundary of the east half of section 30 and along the west boundary of the east half of section 19 to the south-west corner of the south-east quarter of the said section 19; thence easterly along the south boundary of the said south-east quarter of section 19 to the south-east corner thereof; thence southerly along the east boundary of the north-east quarter of section 18 to the south-east corner thereof; thence easterly and along the south boundary of the north-west quarter of section 17 to the south-east corner thereof; thence southerly along the west boundary of the south-east quarter of the said section 17 to the south-west corner thereof; thence easterly and along the south boundary of the said south-east quarter of section 17 to the south-east corner thereof; thence southerly along the road allowance between sections 8 and 9 in township 13, range 20, to the north-east corner of section 20 of township 12, range 20; thence easterly along the north boundary of the north-west quarter of section 21 to the north-east corner thereof; thence southerly along the east boundary of the said north-west quarter of section 21 to the south-east corner thereof; thence easterly along the south boundary of the north-east quarter of section 21 and the north-west quarter of section 22 to the south-east corner of the said north-west quarter of section 22; thence southerly along the west boundary of the south-east quarter of section 22 to the south-west corner thereof; thence easterly along the south boundary of the south-east quarter of the said section 22 to the south-east corner thereof; thence southerly along the east boundary of the north-east quarter of section 15 to the south-east corner thereof; thence easterly along the south boundary of the north halves of sections 14 and 13 to the south-west corner of the north-east quarter of the said section 13; thence northerly along the west boundary of the said north-east quarter of section 13 to the north-west corner thereof; thence easterly along the north boundary of the said north-east quarter of section 13 to the north-east corner thereof; thence northerly along the east boundary of section 24 to the north-east corner thereof; thence easterly along the south bound-

ary of the south-west quarter of section 30 in township 12, range 19, to the south-east corner thereof; thence northerly along the east boundary of the said south-west quarter of section 30 to the north-east corner thereof; thence easterly along the south boundary of the north halves of sections 30 and 29 to the north-east corner of the south-west quarter of the said section 29; thence southerly along the east boundary thereof to the south-east corner thereof; thence easterly along the south boundary of the south-east quarter of the said section 29 to the south-east corner thereof; thence southerly along the east boundaries of sections 20 and 17 to the south-east corner of the north-east quarter of the said section 17; thence easterly along the south boundary of the north-west quarter of section 16 to the south-east corner thereof; thence southerly along the centre line of sections 16 and 9 to the south-west corner of the north-east quarter of section 9; thence easterly along the south boundary of the said north-east quarter of section 9 to the south-east corner thereof; thence southerly and along the east boundary of the south-east quarter of the said section 9 to the south-east corner thereof; thence easterly along the south boundary of the south-west quarter of section 10 to the south-east corner thereof; thence southerly along the west boundary of the north-east quarter of section 3 to the south-west corner thereof; thence easterly along the south boundary of the said north-east quarter of section 3 to the south-east corner thereof; thence southerly along the road allowance between sections 2 and 3 to the south-east corner of the south-east quarter of section 27 in township 11, range 19; thence westerly along the south boundary of the south-east quarter of the said section 27 to the south-west corner thereof; thence southerly through the centre of sections 22, 15 and 10 to the south-west corner of the north-east quarter of the said section 10; thence easterly along the south boundary of the said north-east quarter of the said section 10 to the south-east corner thereof; thence southerly along the road allowance between sections 10 and 11 to the intersection with the left bank of the Old Man River; thence in a generally south-easterly and northerly direction downstream along the said left bank of the Old Man River to the intersection with the south boundary of township 12, range 16; thence westerly along the south boundary of the said township 12 to the point of commencement, all west of the 4th Meridian.

4. The Lieutenant Governor in Council shall have power notwithstanding the provisions of any other Act,—

Powers of  
Lieutenant  
Governor in  
Council

- (a) to increase any Special Area by the addition of land, or decrease any Special Area by the withdrawal of land;
- (b) to appoint a Board of not more than three members, who shall perform such duties and exercise such powers pertaining to a Special Area, or Special Areas which are imposed or conferred upon the Minister by this Act as may from time to time be assigned by the Minister to such Board;
- (c) to appoint such officers, servants, and employees as may be necessary for the administration of this Act and to prescribe their respective duties;
- (d) to make such orders and regulations for the administration of any Special Area, or Special Areas as may be deemed proper, and authorize the carrying out of any scheme or

plans for the rehabilitation or betterment of any Special Area and the inhabitants thereof;

- (e) upon the recommendation of the Minister to provide for the compromise of arrears of taxes owing by any person in respect to any land in a Special Area and fix the amount which shall be accepted in satisfaction thereof and the manner in and the times at which any sum so fixed shall be paid;
- (f) upon the recommendation of the Minister to provide for the compromise of arrears of rentals, dues, fees or other charges owing by any person in respect to any public land in a Special Area and fix the amount which shall be accepted in satisfaction thereof and the manner in and the times at which any sum so fixed shall be paid;
- (g) upon the recommendation of the Minister to make regulations either generally or with respect to any area or with respect to any designated part or parts of any area as to the running at large of domestic animals or any designated kind or kinds thereof, either during the entire year or during any designated part or parts thereof, and either by the prohibition or the permission of the running at large of all or any domestic animals or by both prohibition and permission and to prescribe what shall and what shall not be deemed to be a lawful fence and to prescribe the terms and conditions under which any designated kind or description of domestic animals may be permitted to run at large, or to be grazed upon unfenced lands, and for the impoundment and sale of any animal running at large in contravention of any such regulations.

Special Areas  
constituted  
special  
districts

**5.**—(1) As and from the first day of April, 1939, each special area constituted pursuant to this Act shall be a Special District and shall be assigned a distinctive number by the Minister and its title shall be the words "Special District" followed by such number as is assigned to it by the Minister.

Exclusion  
of parts of  
municipal  
districts in  
special areas

(2) Any part of any special area which immediately before the first day of April, 1939, formed part of any municipal district shall be excluded from such municipal district in the Special District constituted by this Act as if such exclusion and inclusion had been effected pursuant to an order of the Minister of Municipal Affairs made pursuant to section 16 of *The Municipal District Act* and the provisions of section 17 of that Act shall be applicable thereto.

Disorganization  
of municipal  
districts in  
Special Areas

(3) Every municipal district which was immediately before the first day of April, 1939, wholly included within the boundaries of any special area shall on the first day of April, 1939, be dissolved and the area thereof shall be included in the Special District constituted by this Act by order of the Lieutenant Governor in Council as if such dissolution and inclusion had been effected pursuant to section 19 of *The Municipal District Act* and all the provisions of that section shall apply thereto.

Application of  
The Improve-  
ment Districts  
Act, 1927, to  
Special  
Districts

**6.**—(1) Save and except only as is expressly otherwise provided in this Act, all the provisions of *The Improvement Districts Act, 1927*, shall apply to every Special District as if the same were an improvement district constituted pursuant to that Act.

(2) In relation to any Special District all the powers, duties, rights and capacities which are by *The Improvement Districts Act*, 1927, vested in or conferred or imposed upon the Minister of Municipal Affairs shall be vested in, conferred upon and imposed upon the Minister of Lands and Mines and all the powers, duties, rights and capacities which are by that Act vested in or conferred or imposed upon the Deputy Minister of Municipal Affairs shall be vested in, conferred upon and imposed upon the Deputy Minister of Lands and Mines, and all the powers, duties, rights and capacities which are by that Act vested in or conferred or imposed upon the Department of Municipal Affairs shall be vested in, conferred upon and imposed upon the Department of Lands and Mines, as if the Minister of Lands and Mines had been named therein wherever the Minister of Municipal Affairs is named therein, and as if the Deputy Minister of Lands and Mines had been named therein wherever the Deputy Minister of Municipal Affairs is named therein, and as if the Department of Lands and Mines had been named therein wherever the Department of Municipal Affairs is named therein.

7. Notwithstanding any provision to the contrary contained in *The Improvement Districts Act*, 1927, or in *The Assessment Act*,—

- (a) the mill rate for the levying of taxes leviable under the provisions of *The Improvement Districts Act*, 1927, for the purposes of that Act in respect of any land in a Special District which is agricultural land shall be such rate on the dollar of the assessed value of such land as may be fixed from time to time by the Lieutenant Governor in Council;
- (b) the mill rate for the levying of taxes leviable under *The School Act*, 1931, or *The School Assessment Act*, 1931, in respect of any land in a Special District which is agricultural land shall be such rate on the dollar on the assessed value of such land as may be fixed from time to time by the Lieutenant Governor in Council.

8. In case in any year the amount of taxes levied and collectable in any year in any Special District or in any School District included therein is insufficient to defray the expenditures of the Special District or any such school district, the Provincial Treasurer shall make good such deficiency out of such sums as may be appropriated for the purpose by vote of the Legislative Assembly.

9. Where any part of a Special District is included in a Municipal Hospital District constituted pursuant to the provisions of *The Municipal Hospitals Act*, 1929, the amount payable to the Municipal Hospital District in the year 1939 and every year thereafter in respect of the part of the Special District included in the Hospital District shall be paid to the Municipal Hospital District by the Provincial Treasurer out of such sums as may be appropriated for the purpose by vote of the Legislative Assembly.

10.—(1) Notwithstanding the provisions of *The Tax Recovery Act*, 1938, or of any other Act, whenever any parcel of land in a Special District has been finally acquired under the provisions of *The Tax Recovery Act*, 1938, or of any other Act relating to the recovery of taxes, the Minister shall forthwith proceed to obtain title

to such parcel of land, and upon the Minister so obtaining title, every right of any person whatsoever to redeem such parcel of land shall cease and determine.

Prior right  
of leasing  
of land by  
certain  
persons on  
acquisition  
by Minister

(2) In case at the time when the Minister acquires the title to any parcel of land as aforesaid the parcel is in the occupation of a person who was immediately prior thereto the registered owner thereof, or a person who derived title thereto from the registered owner as a purchaser under an agreement for sale or as the personal representative of the owner, such person shall have the right to become the lessee thereof for such term at such rent and upon such terms and conditions as may be prescribed by the Minister; provided always that he shall exercise such right by executing the lease in the form prescribed by the Board or by delivering to the Board a written undertaking to execute such lease within thirty days after the day upon which the Board sends to such person a notice to the effect that the title to the parcel has been taken by the Minister, and setting out therein a copy of this subsection.

Non-  
application  
of Acts  
providing for  
consolidation  
of local taxes

**11.**—(1) On, from and after the 31st day of March, 1939, none of the provisions of *The Local Tax Arrears Consolidation Act, 1935*, shall apply to any arrears of taxes payable in respect of any parcel of land which is situate in a Special District, save and except arrears of taxes with respect to which a consolidation agreement which is subsisting as at the 31st March, 1939, has been entered into pursuant to the said Act, or *The Local Tax Arrears Consolidation Act, 1934*, or *The Local Tax Arrears Consolidation Act, 1935*.

Cancellation  
of consolidation  
agreements  
on default

(2) In case default is made at any time after the 31st day of March, 1939, in the making of any payment of any sum payable pursuant to any agreement for the consolidation of any arrears of taxes payable in respect of any parcel of land situate in a Special District subsisting as at the 31st day of March, 1939, the same shall be cancelled, and no subsequent agreement for the consolidation of any arrears of taxes payable in respect of that land shall be entered into.

Powers of  
Minister

**12.** The Minister is hereby empowered in respect of Special Areas generally or in respect of any specified special area or areas,—

- (a) to direct that any of the public lands or interest therein within a Special Area shall be dealt with in such manner as may seem to him to be for the benefit of the residents of the Special Area, or to prohibit the dealing therein in any manner which seems to him to be detrimental to such residents;
- (b) to lease public lands within a Special Area at such rentals as may seem fair and equitable;
- (c) to set aside lands for community purposes, such as grazing reserves, hay reserves, water reserves and irrigation, and to make such provisions for the administration thereof as may be deemed advisable;
- (d) to receive the money payable in respect of any lease, or any interest in public lands in a Special Area and to expend such moneys, or any part thereof as he may deem advisable for the following purposes or any one of them:



- (i) the costs of administration;
- (ii) the development of any natural resources;
- (iii) the carrying out of improvements within any Special Area; and
- (iv) the rehabilitation of settlers within any Special Area;
- (e) to order and require any owner or occupant of lands to adopt such methods of farming or grazing, or farming and grazing as may be deemed necessary to prevent soil drifting or over-grazing, or any hazard which may dissipate or nullify any assistance rendered to residents within the Special Area;
- (f) to exchange any public lands within a Special Area for any other lands situate within any Special Area;
- (g) to promote approved farm cultural practices and efficient range management, also such community effort and enterprise as may contribute to greater economic security of residents of the Special Area;
- (h) to classify all lands within the Special Area for the purpose of utilizing them for the purpose for which they are considered by him to be most adaptable;
- (i) to promote measures for the development and conservation of any and all available natural resources within any Special Area for the purpose of giving greater stability of income to the remaining residents within the Special Area;
- (j) to promote greater stability and diversity of sources of income for residents within any Special Areas to the end that they may become self-supporting;
- (k) to acquire by purchase or otherwise any property whether real or personal which is requisite or incidental to the exercise of any powers conferred by this Act;
- (l) to carry out and execute any scheme or plans for the rehabilitation or betterment of any Special Area and the inhabitants thereof;
- (m) to do all such things as are requisite or incidental to the exercise of any power conferred by this Act.

**13.** Notwithstanding the provisions of any other Act any lands within a Special Area, the title to which for the time being is registered in the name of any municipality in the proper Land Titles Office, are hereby transferred to, and the title thereto vested in the Minister on behalf of the Crown.

Transfer to  
Minister of  
Lands in  
Special Area  
vested in a  
municipality

**14.—(1)** Any surveyors, engineers, agents and workmen employed by the Province may enter upon and occupy any land in a Special Area for the purpose of making examinations and surveys for the purpose of carrying out any work or undertaking approved by the Lieutenant Governor in Council as a work or undertaking for the rehabilitation or betterment of the Special Area, to construct thereon dams, ditches, weirs, spillways, roads and such other buildings, structures or erections as may be necessary or incidental to the carrying out of any such work or undertaking or the maintenance thereof, and any land forming the site of any such work or undertaking or which is used, or occupied in connection therewith, shall be deemed

Entry and  
occupation  
of land by  
certain  
Provincial  
officials

to be the property of the Crown so long as the same is required for the purpose of such work or undertaking.

Compensation

(2) In any case in which it is made to appear to the Minister that any right or property of any person has been detrimentally affected by reason of any act or thing done pursuant to this section, or by the use or occupation of any land used or occupied in the exercise of any power conferred by this section, the Minister may, after making such inquiries as he deems necessary, allow any such person such compensation as he may in his uncontrolled discretion think proper, and any compensation so allowed shall be paid out of any moneys appropriated by the Legislature for the administration of this Act.

Board the agent of the Minister for certain purposes

**15.**—(1) For the purpose of performing any duty or exercising any power in relation to any Special Area assigned to the Board by the Minister, the Board shall, subject to the direction of the Minister, be the agent of the Minister for that purpose and have the same powers and capacity to perform or discharge such duty or power as is conferred by the Act upon the Minister for that purpose.

Constitution of advisory committees

(2) The Minister may, by order, provide for the constitution in any Special Area of an advisory committee consisting of such persons elected in such manner and by such persons and in such localities as he may prescribe, who shall hold office for such term as he may prescribe, and the functions of such committee shall be to confer with and advise the Board as to matters affecting the Special Area for which it is constituted and shall meet when called by the Board; the members of such committee shall serve without remuneration but shall be entitled to reasonable travelling or subsistence expenses incurred in attending meetings called by the Board.

Disposition of public lands

**16.** No public lands situated in a Special Area shall be sold, leased, or otherwise disposed of without the consent of the Minister.

Disposition of revenue from public lands

**17.**—(1) All revenue derived from public lands within any Special Area shall be deposited in a special account to be called "Provincial Treasurer Special Areas Trust Account," and such revenue may be used in accordance with the provisions of paragraph (d) of section 12 of this Act.

(2) There shall be submitted to the Legislative Assembly within the first fifteen days of the first Session in the next ensuing year and in each subsequent year thereafter a statement of the revenues received and expenditures made during the previous fiscal year.

(3) All revenue derived from Provincial Lands of a class designated School lands shall be payable to the General Revenue Fund of the Province.

Lands vested in Trustees of Irrigation Districts

**18.** Any lands in a Special Area vested in the Trustees of an Irrigation District may, with the approval of the Irrigation Council, be designated by the Minister as public lands, and the lands so designated shall be dealt with as public lands within the meaning of this Act.

Transfer of lands to Minister

**19.** The Minister may accept a transfer on behalf of His Majesty of any lands in a Special Area and any lands so acquired shall be public lands within the meaning of this Act.

**20.** Notwithstanding the provisions of any other Act public lands in a municipality situated in a Special Area shall be removed from the assessment rolls, and shall cease to be liable to assessment and taxation, and any taxes owing in respect to such land, shall be cancelled.

Cessation of assessment and taxation of certain public lands

**21.** All assessments and taxes levied against lands that have been finally acquired by any municipality situate in a Special Area under the provisions of *The Tax Recovery Act*, 1938, or any other Act of the Province relating to the recovery of taxes but to which transfer of title has not been taken, are hereby validated and confirmed.

Validation of certain assessments and taxes

**22.** For the purpose of doing any act or thing authorized by this Act, the Minister and the Board may, with the consent of the Minister in charge of any department of the Government, have the benefit of the services of any officer or other employee of such department, and of the services of any member, officer or employee of any Board or Commission established under the Provincial Statutes.

Services of officers of Departments of the Government, Boards and Commissioners

**23.** In any case in which provision has been made pursuant to this Act for the compromise of any arrears of taxes, rentals, dues, fees, or other charges and a sum has been thereby fixed as the sum to be paid in satisfaction of the arrears, the authority entitled to receive the same shall accept the sum so fixed, and the arrears in excess of the sum so fixed shall be cancelled.

Effecting of compromises

**24.** When an exchange of privately owned land for public land is effected by the Minister and there are no encumbrances other than arrears of taxes or municipal or Provincial liens on the privately owned land, such encumbrances or any part thereof may be transferred to the public land so exchanged; and when any transfer of arrears of taxes is so made the same shall be added to, and become part of the taxes payable for the current year in respect of the land last mentioned.

Exchanges of privately owned land for public land

**25.—**(1) The Department shall keep a record of all lands subject to the provisions of this Act and the said Department shall be responsible for the issuing and recording of all leases, agreements, and contracts of any dispositions made and for the proper enforcement of the terms thereof.

Records of lands subject to this Act

(2) Upon any person becoming entitled to receive a title in fee simple to any lands to which this Act applies, a notification in Form A shall be issued in accordance with the provisions of section 86 of *The Provincial Lands Act*, which notice shall be signed by the Minister or by the Deputy Minister or the person for the time being acting as Deputy Minister and shall be countersigned by the Director of Lands or any person acting as Director in his absence and shall be forwarded to the Registrar of Land Titles for the district in which the land is situate.

Notification as to title on acquisition of certain land

**26.** For the purpose of controlling and regulating any part of an area set aside for a community grazing area, the Minister may, with the approval of the Lieutenant Governor in Council, make such provision for the administration thereof as may be deemed proper, and may prescribe as to the persons who may have animals thereon,

Control and regulation of community grazing areas

the number, kind, and description of animals which any person may place thereon, the fees payable in respect of any animals permitted to graze thereon, the times at which and the manner in which round-ups shall be made, and the impounding and dealing with stray animals thereon and in case any provision so made conflicts with any provision of *The Domestic Animals (Unorganized Territory) Act*, or *The Domestic Animals (Municipalities) Act*, the provisions so made shall prevail.

Sums payable for grazing leases a lien on animals grazed thereon

**27.**—(1) Notwithstanding the provisions of any other Act, all sums payable under any grazing lease or under any permit in respect of any animals run or grazed upon any lease or any community pasture or any public lands shall constitute a first lien in favour of the Crown upon each animal so run or grazed; and the Minister may enforce the lien by the seizure and sale in such manner and at such time as he may deem proper of such of the animals subject to the lien as may be required to realize a sufficient sum to satisfy the full amount owing by the lessee or permittee.

Distress for arrears in respect of dues for grazing

(2) In addition to any of the remedies which the Minister may have, in case default is made in the due payment of any sum owing by a lessee or permittee under any grazing lease or permit with respect to animals run or grazed upon any lease or upon any community pasture, the Minister may recover the same by distress upon any goods and chattels of the lessee or permittee wheresoever the same may be found within the Province, in the same manner and subject to the same conditions, exemptions and restrictions as if the amount so owing were taxes payable under the provisions of *The Municipal District Act*, and all the provisions of that Act relating to distress shall, *mutatis mutandis*, apply to a distress under this section.

Certain services at Land Titles offices without fee

**28.** Notwithstanding the provisions of any other Act, no fees shall be payable by a municipality which is in a Special Area to any Registrar of Land Titles for any service to the municipality in connection with any letter of search or any search of the General Register, the registration of any transfer of title, the issuance of any certificate of title, or the furnishing of any abstract of title.

Advertisements in *The Alberta Gazette* without fee

**29.** Notwithstanding the provisions of any other Act, no fees shall be payable by a municipality situated in a Special Area in connection with advertising in *The Alberta Gazette* under the provisions of *The Tax Recovery Act*.

Application of *The Domestic Animals (Unorganized Territory) Act*

**30.**—(1) Save and except only as is expressly otherwise provided in this Act, the provisions of *The Domestic Animals (Unorganized Territory) Act* shall apply to every special area to the extent that the same are not in conflict with any of the provisions of any regulations made pursuant to section 4 of this Act.

Powers under *The Domestic Animals (Unorganized Territory) Act*, *The Agricultural Pests Act* and *The Noxious Weeds Act*, 1932 exercisable by Minister and others

(2) In relation to any Special Area all the powers, duties, rights and capacities which are by *The Domestic Animals (Unorganized Territory) Act*, *The Agricultural Pests Act* and *The Noxious Weeds Act*, 1932, conferred or imposed upon the Minister of Agriculture shall be vested in, conferred upon and imposed upon the Minister of Lands and Mines and all the powers, duties, rights and capacities which are by that Act vested in or conferred or imposed upon the

Deputy Minister of Agriculture shall be vested in, conferred upon and imposed upon the Deputy Minister of Lands and Mines, and all the powers, duties, rights and capacities which are by that Act vested in or conferred or imposed upon the Department of Agriculture shall be vested in, conferred upon and imposed upon the Department of Lands and Mines, as if the Minister of Lands and Mines had been named therein wherever the Minister of Agriculture is named therein, and as if the Deputy Minister of Lands and Mines had been named therein wherever the Deputy Minister of Agriculture is named therein, and as if the Department of Lands and Mines had been named therein wherever the Department of Agriculture is named therein.

**31.** The Minister shall cause to be prepared a report as to the administration of this Act for each year and the same shall be laid on the table of the Legislative Assembly within fifteen days after the commencement of the first Session in the next ensuing year. Annual report

**32.** In any case in which the Board appointed under *The Special Municipal Areas Act* has entered into any arrangement otherwise than by means of a formal lease whereby any right was given to any person to use any land for the period of one year or for an indefinite period or both, every such arrangement shall be subject to the condition that the same shall be determined immediately upon the Minister sending to that person by registered mail at his last known post office address a notice in writing terminating the arrangement, and upon the thirtieth day after the date of the mailing of any such notice or at such later date as may be specified in the notice for that purpose, the arrangement shall forthwith cease and determine and the Minister shall be entitled to the vacant possession of the land to which the arrangement relates. Determination of certain leases

**33.** Every person who contravenes any order or regulation made pursuant to this Act shall be guilty of an offence and shall be liable on summary conviction therefor to a fine of not more than one hundred dollars and costs and in default of payment to imprisonment for not more than two months. Contraventions of Act and regulations, offences: penalty:

**34.** For the purpose of carrying out the provisions of this Act according to their true intent, and of supplying any deficiency therein, the Lieutenant Governor in Council may make regulations not inconsistent with the intent and spirit of this Act, which shall have the same force and effect as if incorporated therein. Regulations of the Lieutenant Governor in Council

**35.** All leases, licenses, permits and agreements of any nature whatsoever issued or made pursuant to the provisions of this Act may be executed on behalf of the Crown by the Minister, or by any other person authorized for the purpose by the Minister in writing. Extension of leases, etc.

**36.—(1)** In case any conflict arises between any of the provisions of this Act and any of the provisions of any other Act, the provisions of this Act shall prevail. Prevalence of Act

**(2)** In case any conflict arises between the provisions of any regulation made pursuant to section 4 of this Act and any of the pro-

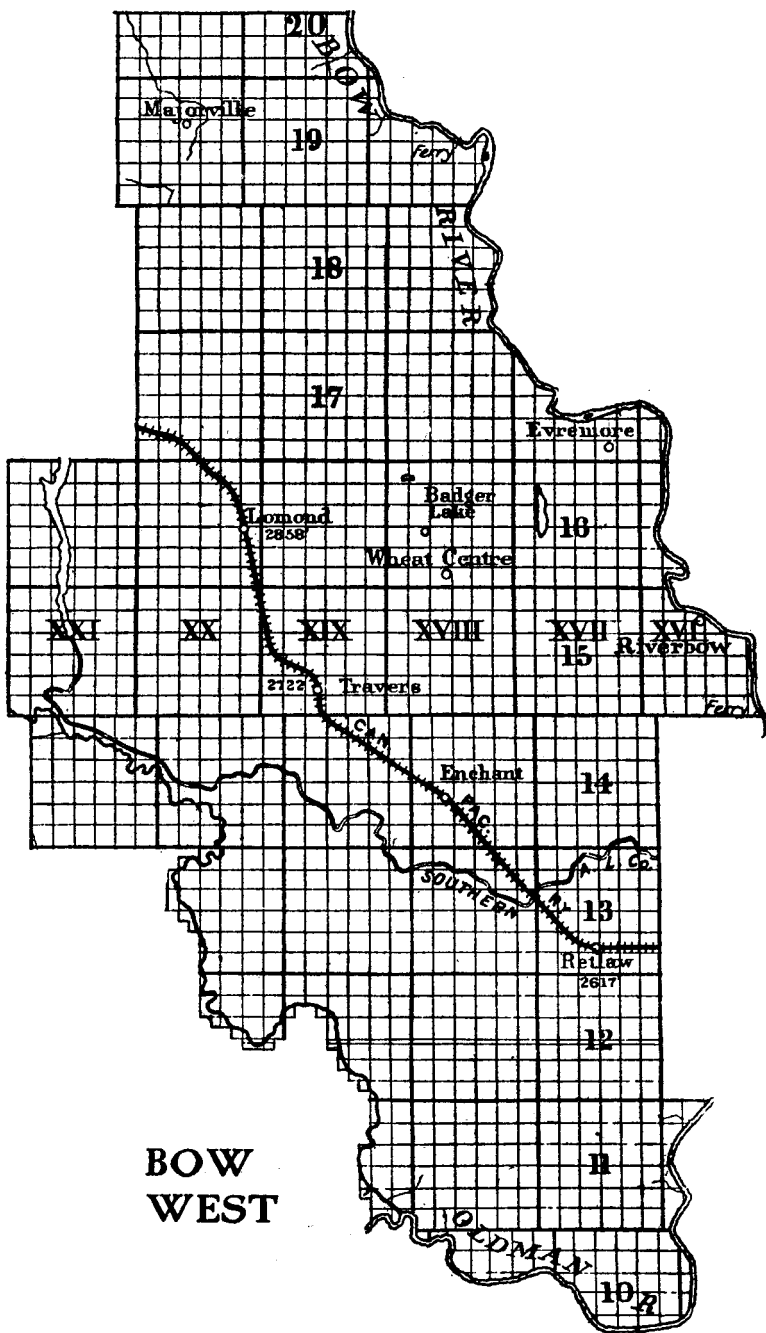
visions of *The Domestic Animals (Unorganized Territories) Act*, the provisions of such regulations shall prevail.

Repeal

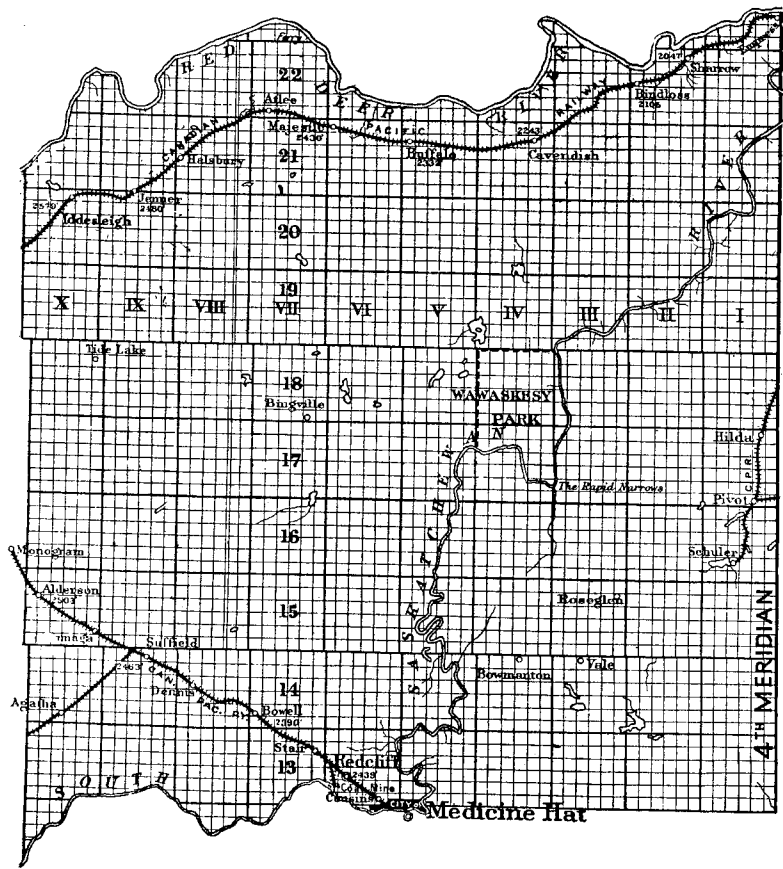
**37.** *The Special Areas Act*, 1938, being chapter 92 of the Statutes of Alberta, 1938, is hereby repealed, but all proceedings instituted under that Act shall be continued as if the same had been instituted under this Act.

Coming into  
force of Act

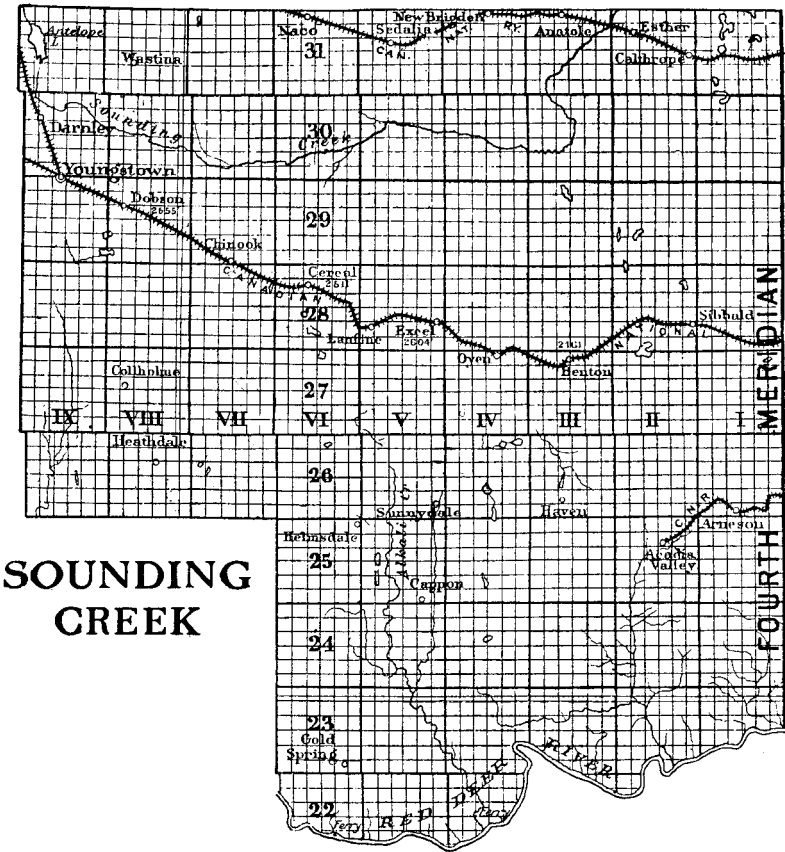
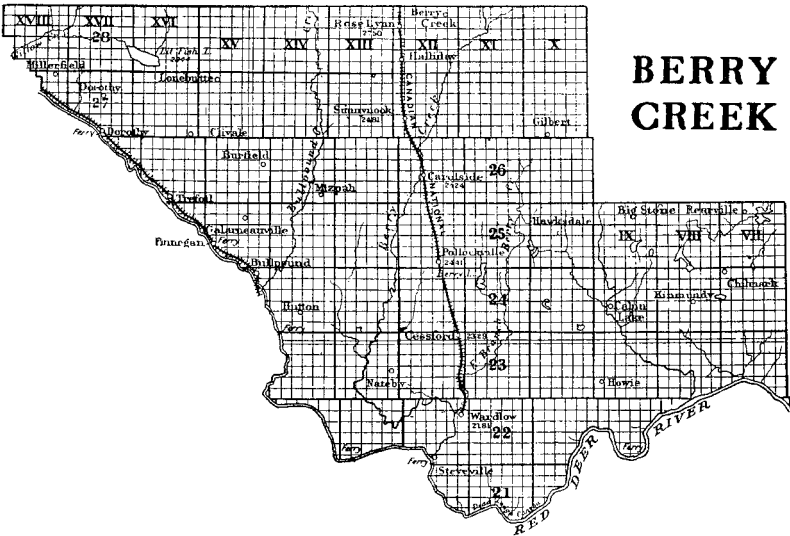
**38.** This Act shall come into force on the day upon which it is assented to.



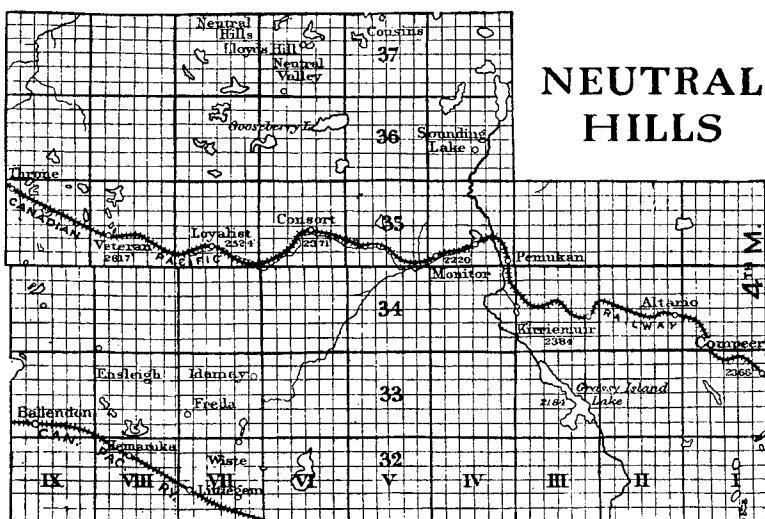
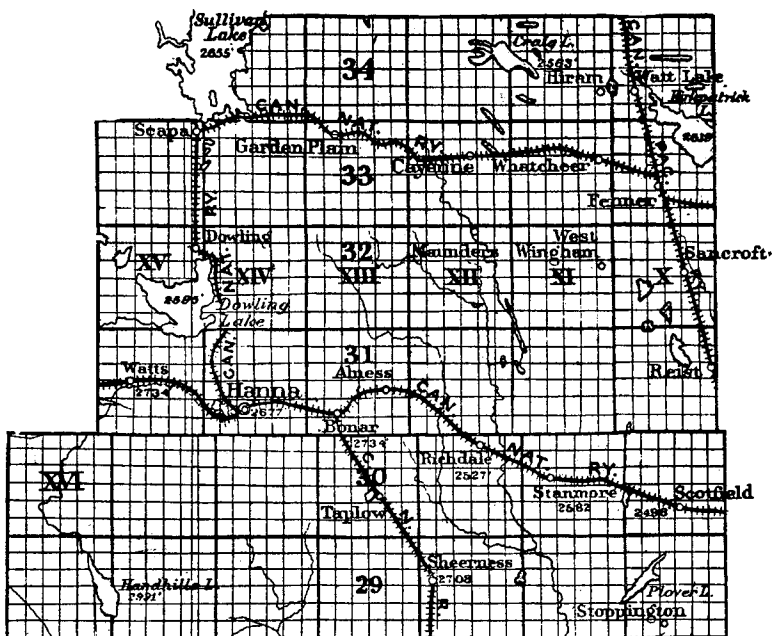
TILLEY EAST







## SULLIVAN LAKE



## Provincial Lands Administration

### REPORT OF THE DIRECTOR OF LANDS, J. W. STAFFORD

On the 1st of May, 1938, the former School Lands Division of this Department, which was charged with the administration of the school lands, was amalgamated with this branch and this necessitated certain internal reorganization in order to carry on successfully the administration of the two classes of lands.

The transfer of the school lands records to this branch more than occupied the space available, resulting in the work being carried on under rather crowded conditions.

Under the provisions of The Special Areas Act, the lands, which were formerly included in the several special areas in the south-eastern portion of this Province, were brought under the administration of the Department of Lands and Mines, and a Special Areas Board was set up for the purpose of administering these lands, with the result that a large number of files was transferred from this Division to the Special Areas Board, these files dealing chiefly with grazing matters.

Under the provisions of "An Act to Amend and Consolidate the Special Areas Act of 1938," the lands, included within the boundaries of the Municipal District of Acadia, No. 241, were withdrawn from the provisions of The Special Areas Act and the administration of these lands was again transferred to this Division, necessitating the re-transfer to this Division of certain files and documents, which had previously been transferred to the Special Areas Board.

Regulations providing for the issue of cultivation permits and also for the issue of six-year cultivation leases on provincial lands were rescinded and on the 5th of November new regulations were established providing for the issue of ten-year cultivation leases.

The right to obtain homestead entry, second homestead and soldier grant entry was discontinued on the 24th of March and the right to make application for the cancellation of an existing entry was also withdrawn.

At that time there were certain applications on hand in connection with which cancellation proceedings had been instituted with the result that these applications, numbering 304 in all, were cancelled and the application fee of \$2.00 in each case was refunded to the applicant.

Land agencies were maintained at Calgary, Lethbridge, and Peace River with Sub-Agencies at Medicine Hat, Rocky Mountain House, Athabaska, Lac La Biche, Bonnyville, Hines Creek and Grande Prairie. The Sub-Agency at St. Paul was discontinued.

On the 1st of April, 1938 there were outstanding 1,636 requests for inspections in the field. Inspections called for during the year numbered 2,173 and reports received numbered 2,370, leaving 1,439 required inspections outstanding.

The total revenue received for the fiscal year in connection with the administration of provincial lands amounted to \$159,415.63 as compared with \$181,412.38 during the previous year, showing a reduction of \$21,996.75.

Details pertaining to this revenue will be found in the Accounting Division section of this report.

In addition to the general administration of provincial lands, this Division maintains a complete filing system and a central registry, through which all letters

directed to the Department were received and from which all outgoing letters were dispatched.

During the past year a total of 135,454 letters were received and 175,627 were despatched. This shows an increase over last year of 28,314 letters received and 2,255 letters despatched.

In connection with the Filing Division 1,931 new files were made, bringing the total number of files in use up to 95,673.

The number of stencils cut during the present year is 613 as compared with 376 last year and 190,745 pages were mimeographed as compared with 145,307 last year. Translations for this and other Departments numbered 336.

With reference to crop shares to be paid in accordance with the various cultivation leases issued, these crop shares were reduced to the same basis as in the previous year and collections compared favourably with former years.

Homesteads and other entries granted during the year were as follows:

Homesteads .....	1,277
Second homesteads .....	73
Soldier grants .....	3
Total .....	1,353

This total included 513 entries accepted from women.

The following statement shows additional transactions completed during the year:

Applications for cancellation .....	1,124	Cultivation and grazing leases transferred to Special Areas .....	86
Entres cancelled .....	2,345	Provincial lands sales .....	83
Applications for patent received .....	1,968	Townsite leases issued .....	2
Notifications for title issued .....	2,874	Surface leases issued .....	3
Grazing permits issued .....	952	Licences of occupation issued .....	15
Hay permits issued .....	1,140	Miscellaneous leases issued .....	17
Accrued area leases issued .....	64	Fur farming leases issued .....	1
Accrued area leases cancelled .....	33	Assignments registered .....	77
Cultivation and grazing leases issued .....	30		
Cultivation and grazing leases cancelled .....	20		

In last year's report, the section dealing with the Grazing Division presented a rather lengthy review of the activities of this Division in connection with the consolidation of rentals and tax arrears on lands held under long term grazing leases.

Following these consolidations a considerable number of lessees failed to make payment of the required rentals and instalments due in connection with their leases, with the result that a large number of the leases were cancelled.

It was subsequently decided through those lessees, who had lost control of their leases through cancellation of same being carried out, might have their leases reinstated by making payment of the past due rentals together with any instalment on consolidation which was past due. It is pleasing to be able to report that quite a number of these lessees took advantage of this liberal offer and had their leases reinstated.

The following statement gives particulars concerning transactions in connection with long term leases during the present fiscal year:

	Number	Area
Leases in existence at the 1st of April, 1938 .....	2,553	3,068,811.87
Leases issued .....	13	6,554.90
Leases reinstated .....	80	130,036.67
Leases cancelled .....	837	795,159.76
Leases and portions of leases transferred to Special Areas Board .....	444	654,894.83
Area added to existing leases .....		69,871.30
Leases re-transferred from the Special Areas Board .....	31	24,475.22
Area withdrawn from existing leases .....		37,415.03

On the 31st of March, 1939 there were in existence 1,396 long term leases comprising an area of 1,812,280.34 acres, summarized as follows:

	Number	Area
Dominion leases .....	690	958,277.64
Provincial leases .....	706	854,002.70

## School Lands Administration

The report for the fiscal year ending 31st of March, 1939, in connection with the administration of School Lands, is submitted herewith.

On the 1st of May, 1938, the former School Lands Division of this Department was amalgamated with the Provincial Lands Division, and the administration of the school lands was placed under the control of the Director of Lands.

This amalgamation naturally required certain internal changes in order to carry on the work successfully but was accomplished without any great difficulty.

As school lands are administered by the Province in trust, in order to create a fund for the purpose of education it is essential that separate records be maintained in connection with the administration of these lands, so that at any future time a proper accounting can be made of the administration of these lands and in order that the records might be readily separated at any time, should it be decided in the future to administer the school lands as a separate unit.

The Board appointed pursuant to the provisions of Section 44 of The Provincial Lands Act, to deal with applications for a compromise or adjustment in connection with school lands sales continued to function throughout the year.

Many applications were made to the Board for an adjustment or compromise with the result that 1,270 cases were dealt with as compared with 694 cases last year. In connection with these 1,270 cases, the Board recommended reductions in the sum of \$1,437,602.37 on account of principal and \$1,090,421.03 on account of interest, a grand total of \$2,528,023.40. All of the Board's recommendations were accepted by the Government and the reductions recommended in each case were made effective by various orders in council passed during the year.

The total net revenue collected for the fiscal year amounted to \$444,519.37 as compared with \$282,469.70 for the previous year, being an increase of \$162,049.68.

Of the total revenue collected the sum of \$86,322.26 was paid on account of principal moneys in connection with land sales and was transferred to the credit of the School Endowment Fund. The balance of the moneys, namely \$358,197.11, comprises payments made on account of interest, rentals, royalties, etc., and other items of a more or less similar nature. The increase in revenue is chiefly attributable to more favourable farming conditions throughout the Province and the fact that better prices were obtained for marketable produce than in previous years.

No general auction sales of school lands were held during the fiscal year but 186 former school land sales were reinstated under the provisions of section 44, sub-section 2 of The Provincial Lands Act and reductions granted in connection therewith by the Board previously referred to.

By Order in council, bearing date 5th of November, 1938, the regulations pertaining to the issue of cultivation permits and the issue of six-year cultivation leases on school lands were rescinded and new regulations were established by Order in council, providing for the issue of leases to cultivate school lands, which had not been previously brought under cultivation. Such leases are issued for a term of ten years renewable for a further term of ten years, but these leases are not issued until an inspection has been made of the land and it has been satisfactorily established that at least one-third of the area applied for is suitable for cultivation. The maximum area which may be obtained under this class of lease is two quarter sections or 320 acres.

During the past fiscal year 41 cultivation leases were issued comprising an area of 8,022.22 acres. Of these leases 15 were issued under the provisions of the new regulations.

During the past year 149 cultivation leases comprising an area of 26,630.13 acres were cancelled. Crop share collections for the fiscal year compare favourably with those of former years.

A total of 398 permits was issued authorizing the cutting of 3,721 tons of hay under authority of which 2,750 tons of hay were cut. No seizures of hay were made during this year.

In connection with timber operations, 7 timber berths were disposed of by sale and from these berths and other berths in operation the following material was manufactured:

5,009,905 F.B.M. of lumber  
2,702 railway ties  
104,000 lath

In addition to the above, 478 timber permits were issued authorizing the cutting of timber on school lands and under authority of these permits the following material was cut:

1,973,094 F.B.M. of lumber  
9,561 lineal feet of logs  
10,804 fence posts  
536 roof poles  
902 fence rails  
3,400 fence droppers  
3,671 cordwood  
16,000 shingles  
59,979 lineal feet of mine props  
4,711 railway ties  
623,075 lath

During the year a total of 23 timber seizures was made covering the following material:

722,649 F.B.M. of lumber.  
106 cords of cordwood  
2,550 fence posts  
579 telephone poles  
801,875 lath  
1,634 logs

In conjunction with the carrying on of usual routine business, the following additional transactions were completed:

Assignments registered .....	87
Cultivation and grazing leases issued .....	41
Cultivation and grazing leases cancelled .....	149
Grazing permits issued .....	1,881
Hay permits issued .....	398
Timber permits issued .....	478
Timber seizures .....	23
Hay seizures .....	Nil

## Mining Lands Administration

REPORT OF THE SUPERINTENDENT OF MINING LANDS,  
J. W. HAMILTON

The interest in petroleum and natural gas, so evident in the past fiscal year, still continued during the period under review. Although the major mining industry of the Province remains with coal it will be noted that the revenue derived by this Division from petroleum and natural gas is considerably in excess of that procured from coal operations. The reduction in the output of coal is due mainly to the exceedingly mild winter of 1938-39.

The quantities of non-metallic minerals produced in the Province during the calendar year, 1938 were coal 5,230,025 tons, petroleum 6,742,039 barrels, natural gas 25,622,900 thousands of cubic feet, salt 4,045 tons and sodium sulphate 64 tons. The tonnage of clays produced is not known, but the amounts of other structural minerals were cement, 304,373 barrels, lime, 12,053 tons, sand and gravel, 803,907 tons and stone, 15,278 tons.

The total value of minerals produced was approximately \$25,059,521 of which coal was valued at \$13,702,983; petroleum \$8,638,926; natural gas \*\$1,024,916; salt, \$46,035; sodium sulphate, \$448; and the structural materials—clay products, \$357,517; cement, \$611,790; lime, \$107,012; sand and gravel, \$524,240; stone, \$34,916; and miscellaneous, \$10,738.

Mineral rights, solid, liquid and gaseous, the property of the Crown, are disposed of by lease, reservation, permit or grant for limited periods of time and not by sale. The Mining Lands Division is charged with the administration of regulations governing these rights on both provincial and school lands. The sources of revenue are fees, rentals, bonuses and royalty and from which there was collected during the fiscal year the sum of \$1,210,765.48, an increase of \$317,176.91 over the previous year.

An increase of \$92,986.27 is shown on petroleum and natural gas rentals which is mainly due to there being firstly, a larger acreage now under petroleum and natural gas lease and secondly, to the rental on the large number of leases issued during the previous year being at the rate of fifty cents an acre for that year and now subject to \$1.00 an acre for the second and each succeeding year. Royalties collected on petroleum and natural gas for the current year are in excess of \$249,241.66 over the previous year.

Considerable activity has been shown under the regulations for the establishing of reservations for geological examination of large areas and during the year 334,600 acres were placed under reservation for that purpose. By this procedure a person or company, after conducting an examination of the area and furnishing the Department with geological reports, may then acquire under petroleum and natural gas lease such areas as appear most promising for the recovery of oil and natural gas.

During the year 1,292 applications for mineral rights were made at the offices of the Mining Recorders located at Calgary, Edmonton, Lethbridge and Peace River which necessitated the preparation of a similar number of files in the Division. Numerous requests were made at the office and by correspondence regarding the availability of lands for petroleum and natural gas leases. Some of the inquiries on mining rights required considerable investigation and prepara-

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\*Based on a well-head valuation of .04c per Mcf.

tion. A total of 30,726 letters was despatched by the Division during the year under review.

The following tabulations show the numbers and acreage of the various leases issued from October 1st, 1930, the date the natural resources were transferred to the Province of Alberta, to March 31st, 1939:

Type of Lease	Active at date of transfer	Issued	Divided	Cancelled	Renewed	Active at March 31st, 1939
Petroleum and natural gas, provincial lands .....	16,899	6,622	173	18,546	140	5,008
Petroleum and natural gas, school lands .....	1,964	823	8	2,304	1	490
Petroleum and natural gas, crown reserve .....	5	20	.....	25	.....	.....
Coal, provincial lands .....	620	334	3	489	102	366
Coal, school lands .....	60	25	.....	45	7	33
Quarrying .....	45	37	.....	33	.....	49
Quartz mining .....	4	.....	.....	.....	.....	4
Salt .....	1	1	.....	1	.....	1
Bituminous sands .....	4	1	.....	3	.....	2
Miscellaneous .....	1	3	.....	1	.....	3
Dredging .....	32	6	.....	36	.....	2
<b>TOTALS</b> .....	<b>19,635</b>	<b>7,872</b>	<b>184</b>	<b>21,483</b>	<b>250</b>	<b>5,958</b>

#### ACREAGE CONTAINED IN ABOVE LEASES

Type of Lease	Active at date of transfer	Issued	Cancelled	Renewed	Active at March 31st, 1939
Petroleum and natural gas, provincial lands .....	2,263,076	1,294,853	2,484,864	19,714	1,053,351
Petroleum and natural gas, school lands .....	191,726	116,615	230,684	420	77,237
Petroleum and natural gas, crown reserve .....	6,160	22,561	28,721	.....	.....
Coal, provincial lands .....	236,984	111,951	169,904	75,105	103,926
Coal, school lands .....	9,570	2,393	5,773	1,464	4,726
Quarrying .....	1,675	578	752	.....	1,501
Quartz mining .....	182	.....	.....	.....	182
Salt .....	200	6,721	200	.....	6,721
Bituminous sands .....	3,952	1,808	3,643	.....	2,117
Miscellaneous .....	3,560	323	10	.....	3,873
<b>TOTALS</b> .....	<b>2,717,085</b>	<b>1,557,803</b>	<b>2,924,551</b>	<b>96,703</b>	<b>1,253,634</b>
Dredging (in miles) .....	145	22	157	.....	10

#### STATEMENT OF BUSINESS TRANSACTED, 1938-39 PETROLEUM AND NATURAL GAS

	Number	Acres
Leases issued on provincial lands .....	902	302,882.05
Leases cancelled and relinquished on provincial lands .....	1,831	234,332.42
Leases issued on school lands .....	124	29,189
Leases cancelled and relinquished on school lands .....	244	23,484.90
Permits to prospect cancelled and relinquished .....	8	139,417
Reservations issued .....	20	334,600
Reservations cancelled and relinquished .....	7	196,718
Fees, rentals and bonuses collected .....		\$413,185.41
Royalties collected .....		522,765.76
<b>TOTAL</b> .....		<b>\$935,951.17</b>

#### COAL

	Number	Acres
Leases issued on provincial lands .....	32	4,893.58
Leases cancelled and relinquished on provincial lands .....	32	7,797.48
Leases issued on school lands .....	2	93
Leases cancelled and relinquished on school lands .....	3	594.40
Domestic permits issued .....	20	.....
Fees and rentals collected .....		\$111,431.25
Royalties collected .....		152,341.01
<b>TOTAL</b> .....		<b>\$263,772.26</b>



## QUARRYING

	Number	Acres
Leases issued .....	5	56
Leases cancelled and relinquished .....	2	55.91
Sand, stone and gravel permits issued .....	21	.....
Fees and rentals collected .....	\$1,511.94	
Royalties collected .....	1,763.27	
<b>TOTAL</b> .....	<b>\$3,275.21</b>	

## DREDGING

	Number	Area in Miles
Leases issued .....	2	9.50
Leases cancelled and relinquished .....	4	20
Fees and rentals collected .....	\$485.00	
Royalties collected .....	.....	
<b>TOTAL</b> .....	<b>\$485.00</b>	

## MISCELLANEOUS

	Number	Acres
Bituminous sands leases issued .....	1	1,807.70
Leases to extract glauber salts cancelled .....	1	10
Permits to collect bitumen issued .....	1	.....
Quartz mining claims granted .....	Nil	.....
Quartz mining certificates of work issued .....	2	.....
Powers of Attorney (quartz) registered .....	2	.....
Placer claims granted .....	3	.....
Powers of Attorney (placer) registered .....	Nil	.....
Bar-diggings permits issued .....	Nil	.....
Fees, rentals and royalties collected .....	\$7,281.84	

## ASSIGNMENTS REGISTERED, 1938-39

Nature	Number
Petroleum and natural gas, provincial lands .....	695
Petroleum and natural gas, school lands .....	103
Coal, provincial lands .....	6
Coal, school lands .....	2
Quarrying .....	6
Dredging .....	2
<b>TOTAL</b> .....	<b>814</b>

## PETROLEUM AND NATURAL GAS

*Development of Leases.*—Approved expenditures incurred in actual development of petroleum and natural gas rights acquired under lease or reservation may, under the regulations, be accepted in satisfaction of rentals which should otherwise be paid in cash, and during this fiscal period, rentals due the Crown amounting to \$418,445.72 were satisfied from such expenditures and so reduced the revenue of the Division to that extent. The total rental revenue received in cash was \$413,185.41, which, added to the expenditures accepted in lieu of rental, makes a total of \$831,631.13 chargeable to fees, rentals and bonuses.

*Disposal by Public Tender.*—The provision of the regulations for the disposal at auction of petroleum and natural gas rights in areas comprised in cancelled leases has resulted in payment to the Crown of bonuses amounting to \$3,434.24 during the last fiscal year. Of this amount, \$3,298.19 was bid and paid on provincial lands' rights, and \$136.05 on school lands' rights.

*Number and Area of Leases.*—During the year 1,026 petroleum and natural gas leases were issued, comprising an area of 332,071 acres, of which 902, comprising 302,882 acres, represented rights on provincial lands and 124, comprising 29,189 acres, rights on school lands.

The Province has issued since October 1st, 1930 a total of 7,465 leases, comprising 1,434,029 acres, and the Department of the Interior transferred to the Province 18,868 leases comprising 2,460,962.48 acres.

Of this total 5,498 leases are now active comprising an area of 1,130,588 acres of which leases rights on provincial lands total 5,008, and those on school lands, 490, containing respectively 1,053,351 and 77,237 acres.

*Prospecting Permits.*—The regulations covering the issue of permits to prospect for petroleum and natural gas rights, the property of the Crown, which were established by Order in Council, No. 671/31, were rescinded on the 7th of September, 1937, by Order in Council, No. 1027/37. The balance of these permits which were 8 in number and which covered an area of 139,417 acres, was cancelled.

*Petroleum and Natural Gas Reservations.*—Regulations covering the reservation for geological examination of petroleum and natural gas rights, the property of the Crown, were established by Order in Council, No. 1026/37, dated the 7th day of September, 1937. During the year 20 reservations were established, comprising 334,600 acres, and 7 cancelled on an area of 196,718 acres. There are now 314,375 acres affective under these regulations, contained in 20 reservations.

### COAL

Lands patented, sold or disposed of by the Department of the Interior, prior to October 31st, 1887, conveyed the surface and minerals excepting gold and silver. As early as the year 1883 coal rights were sold outright at prices ranging from seven to ten dollars an acre on coal other than anthracite and for twenty dollars an acre on anthracite. It was not until February 6th, 1901, that regulations were introduced reserving a royalty to the Crown which became effective on April 6th, 1901. From April 6th, 1901 to March 4th, 1907, the practice of selling continued at the above prices but the sales were subject to royalty which, on May 31st, 1901, was established at the rate of ten cents a ton. The rate of royalty was later reduced to seven cents a ton on merchantable coal mined following January 1st, 1915. Since March 4th, 1907, coal rights have been disposed of by lease at a yearly rental of one dollar an acre and a royalty of five cents a ton.

Leases are now granted only for the extension of existing operations or for small mines where the local market cannot be economically supplied from existing mines in the vicinity. In this fiscal year, 43 applications were considered and 34 leases issued comprising 4,986.58 acres.

The following quantity of coal, subject to Crown royalty, mined during the year is slightly less than the previous year when 3,227,397 tons were mined:

	Tons
Provincial lands' leases .....	2,169,694
School lands' leases .....	182,632
Coal and mineral sales .....	470,146
	<hr/> 2,822,472

Crown royalties collected on coal since April 1st, 1907, are as follows:

Fiscal Year	Royalty Paid	Fiscal Year	Royalty Paid
1907-1908 .....	\$ 7,621.67	1925-1926 .....	\$ 188,277.94
1908-1909 .....	5,322.39	1926-1927 .....	218,150.10
1909-1910 .....	153,559.98	1927-1928 .....	231,757.96
1910-1911 .....	218,932.88	1928-1929 .....	254,616.27
1911-1912 .....	104,894.55	1929-1930 .....	248,083.71
1912-1913 .....	142,997.79	1930-1931 .....	105,126.51
1913-1914 .....	147,198.75	1931-1932 .....	145,170.33
1914-1915 .....	104,489.77	1932-1933 .....	143,800.01
1915-1916 .....	67,190.17	1933-1934 .....	193,527.82
1916-1917 .....	149,447.82	1934-1935 .....	176,122.43
1917-1918 .....	144,634.75	1935-1936 .....	186,691.23
1918-1919 .....	175,687.66	1936-1937 .....	193,810.33
1919-1920 .....	181,641.80	1937-1938 .....	173,386.26
1920-1921 .....	190,545.80	1938-1939 .....	152,341.01
1921-1922 .....	185,436.88		
1922-1923 .....	171,723.83	Total .....	<hr/> \$5,121,557.03
1923-1924 .....	210,389.53		
1924-1925 .....	148,979.10		

*Coal for Domestic Use.*—Permits to mine coal on provincial lands for domestic use are issued on payment of a fee of one dollar and royalty at the rate of ten cents a ton. A location must be staked by placing a post at each corner and the area cannot exceed one acre. During the year 20 permits were issued authorizing an extraction of 465 tons by strip-mining methods. All permits expire on the 31st of March following the date of issue but are subject to renewal from year to year providing the permittee complies with the requirements of the regulations and submits an application for renewal prior to the expiry date.

#### QUARRYING

Quarrying leases on Crown lands are issued under the regulations for limestone, granite, slate, marble, marl, gravel, sand, clay, volcanic ash or any building stone at a yearly rental of \$1.00 an acre and a royalty of five cents a cubic yard. The royalty charge does not apply to leases issued to railway companies for the maintenance of roadbeds or to leases issued to cities, towns or municipalities requiring material for construction or maintenance of municipal works or improvements. In the calendar year of 1938 approximately 175,000 cubic yards of sand, gravel, limestone and shale were extracted from Crown lands.

At the close of the fiscal year 49 leases were active covering an area of 1,501 acres.

*Sand, Stone and Gravel Permits.*—Permits of this nature are issued on the beds of rivers and lakes at a fee of \$2.50 and a royalty of five cents a cubic yard. A permit does not give an exclusive right to remove sand, stone or gravel from the portion of the river or bed of the lake it covers. During the fiscal year 21 permits were issued authorizing the extraction of 5,818 cubic yards but some of these are now cancelled as permits expire on the 30th day of November following the date of issue.

#### DREDGING

The four dredging leases referred to in the previous report were cancelled and two new leases were issued on the McLeod river covering nine and one-half miles. No dredging operations, however, were conducted in the Province during the year.

#### QUARTZ

Two powers of attorney were filed by prospectors who intended undertaking prospecting trips but no claims were recorded during the year and only two certificates of work were issued. In order to procure a certificate of work on an existing claim the holder must submit evidence that he has expended \$150.00 in actual development work or make payment of that amount to the Mining Recorder. One claim for the recovery of bentonite was in effect and royalty of \$54.00, being at the rate of  $2\frac{1}{2}\%$  of the value, was collected.

If the regulations have been fully complied with for five years, the holder of a claim may apply for a lease for a period of twenty-one years. At present four leases of this nature covering 181.8 acres, which were issued by the Department of the Interior, are active.

#### PLACER

A grant for placer mining on the bank of the Peace River which had been effective since 1934 was again renewed and a new grant and a renewal were issued covering claims on the bank of the Athabaska River. Nine ounces of gold were reported extracted during the year.

## BITUMINOUS SANDS

One lease was issued in township 95, ranges 10 and 11, west of the 4th meridian, covering an area of 1,807.70 acres. The lessee is required to commence building a plant capable of extracting the bitumen by May 1st, 1939 and to have the plant completed and ready for commercial production on or before October 31st, 1939. A lease of 308.71 acres, also in the McMurray district is active from the previous year. Two companies are experimenting on lands held under special development agreements and one of the companies reported extraction during the year 1938 of 1,282 barrels of oil and 1,627 barrels of bitumen.

## SODIUM CHLORIDE (Common Salt)

A salt lease was issued in 1937 covering 6,720.82 acres in townships 88 and 89, ranges 8 and 9, west of the 4th meridian. Considerable experimental work was conducted and by January 1938 a plant was erected and equipped for production. Two salt wells and a test well had been drilled and during this year a further salt well was completed at a depth of 952 feet. Production of 5,420 tons was reported which was subject to Crown royalty of twenty cents a ton.

## MISCELLANEOUS LEASES

Two leases are in force for the removal of sodium sulphate (glauber salts) occurring in a comparatively pure condition in certain sloughs and shallow lakes. The leases were issued for a term of five years and contain an area of 32.56 acres. Production for the year amounted to 124 tons.

## SPECIAL PERMITS

The annual permit for the collection of bitumen issuing from a well in the Peace River District was again renewed and during the year 1,161 gallons were secured.

## Petroleum and Natural Gas

### REPORT OF THE PETROLEUM AND NATURAL GAS DIVISION

The year saw rapid progress in development of the Turner Valley field and a considerably increased campaign of prospecting in other areas of the Province.

An important development was the setting up of the Petroleum and Natural Gas Conservation Board under an Act passed in April, 1938, subsequently repealed and re-enacted in November, 1938. Under this Act the Conservation Board was given very wide powers to control and regulate the drilling and production of wells in producing areas, with the object of effecting conservation of oil and gas resources in the Province. The production of oil wells in Turner Valley has since been prorated so as to provide each well its proper share according to its ownership in the common reservoir, as well as can be ascertained from reliable tests and production records, and a considerable reduction has been made in the waste of gas from the vapour phase wells in the field.

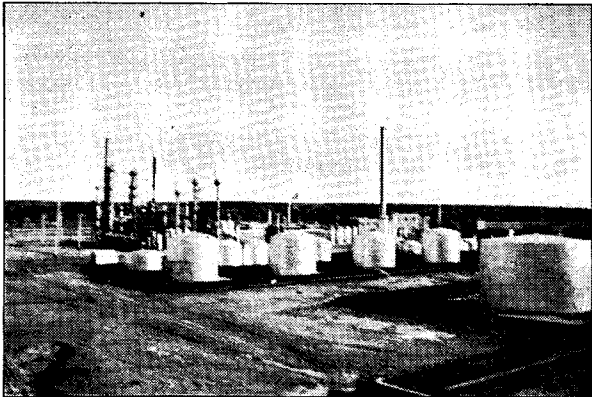
New regulations under The Oil and Gas Wells Act were passed giving the Board the responsibility of administration of drilling operations in other parts of the Province.

In November, 1938, a Royal Commission opened hearings in Calgary and many phases of production and marketing of oil were examined. The first phase of the hearing involved costs of piping oil from Turner Valley to Calgary. Since cost of transporting oil by pipe line is largely affected by the total quantity of oil to be handled before the final depletion of the field, much evidence as to oil reserves was introduced. The evidence, being in the nature of estimates and opinions, was not in close agreement but it did bring out general agreement that the probable total reserves are very considerable, and the Commission recommended a reduction in the handling charges.

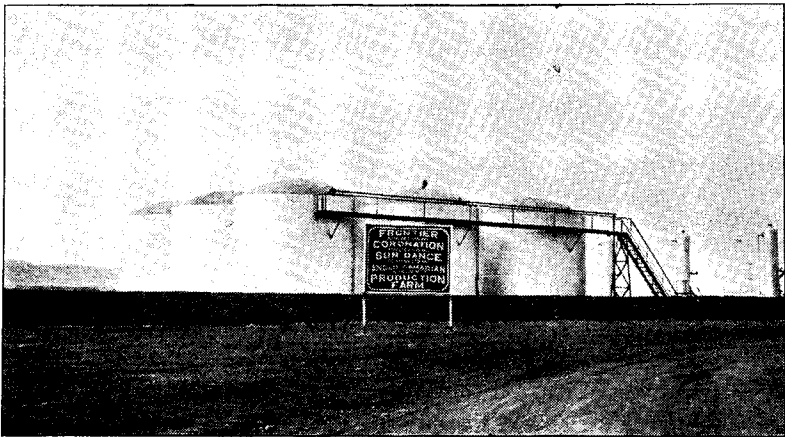
Thirty-seven limestone wells were completed in Turner Valley during the year, of which one encountered water and marked a limit to the field, although the limit was not definitely fixed. One well (Home-Millarville No. 2) in the extreme north end of the field proved a very large producer, and yields a relatively small amount of gas per barrel of oil, being less than one Mcf. per barrel. This well and the more moderate success of Royalite No. 29 in the same general area, led to increased interest in the north end. Royalite No. 35 was started during the year, and other wells were being planned for that new and interesting section of the field.

A very considerable amount of prospect drilling was carried out in other parts of the Province in an endeavour to find another producing oil field.

A Schedule of Wells drilled in Alberta for oil and gas to 1938 was prepared and printed, publication being made late in 1938. A previous publication in mimeograph form was badly out of date, and the new book affords a fairly complete record of every well that has been drilled. The information, as far as it can be given, presents data for each individual well in connection with casings, occurrences of water, gas and oil and a summary of geological markers.



New British American Oil Company's refinery completed at Calgary in April, 1939



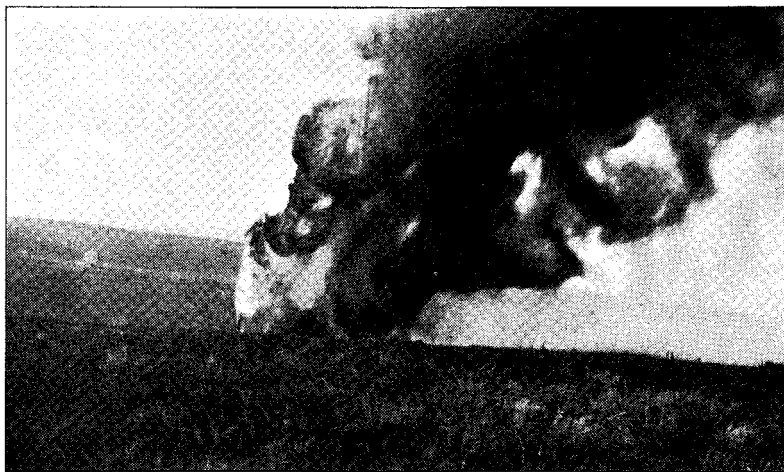
Storage tanks in Turner Valley

## TURNER VALLEY COMPLETIONS,

arranged by date of completion during the fiscal year (west of the 5th meridian)

Well	Location	Depth	Date Started	Date Completed
Brown No. 4	*4 of 21, 18-2	6733'	Oct. 18, 1937	April 9, 1938
Pacific (West Turner) No. 1	2 of 32, 18-2	7274'	Aug. 10, 1937	April 17, 1938
National No. 2	14 of 9, 18-2	7705'	April 1, 1937	May 24, 1938
Reward-Spooner-Model No. 2 (Model-Spooner-Reward No. 2)	1 of 29, 18-2	7185'	Dec. 8, 1937	May 18, 1938
Sundance No. 1	9 of 17, 18-2	7410'	Dec. 31, 1937	May 18, 1938
Barsac No. 1	12 of 21, 18-2	6855'	Oct. 24, 1937	May 27, 1938
Royalite No. 30	11 of 32, 18-2	7690'	Jan. 13, 1938	May 31, 1938
United No. 5	1 of 20, 18-2	7303'	Dec. 12, 1937	June 6, 1938
Frontier No. 1	11 of 16, 18-2	6915'	Jan. 15, 1938	June 9, 1938
Vulcan-Brown No. 1	10 of 5, 19-2	7440'	April 24, 1937	June 11, 1938
Globe No. 1	7 of 29, 18-2	7400'	April 9, 1937	June 11, 1938
Coronation No. 1	15 of 17, 18-2	7572'	Jan. 4, 1938	June 27, 1938
Pacific (West Turner) No. 2	7 of 32, 18-2	7133'	Jan. 19, 1938	July 19, 1938
Mercury Royalties No. 1	8 of 5, 19-2	6666'	Dec. 3, 1936	July 25, 1938
Royalite No. 31	6 of 29, 18-2	8064'	Mar. 5, 1938	Aug. 7, 1938
Royalite No. 32	8 of 17, 18-2	7308'	Mar. 23, 1938	Aug. 12, 1938
Commoil No. 2	10 of 29, 18-2	7665'	April 10, 1938	Aug. 29, 1938
Royalite No. 33	2 of 5, 19-2	7676'	May 2, 1938	Sept. 4, 1938
York No. 1	2 of 20, 18-2	7463'	Jan. 21, 1938	Sept. 7, 1938
Sunset No. 2	7 of 20, 18-2	7527'	Feb. 27, 1938	Sept. 16, 1938
Brown No. 5	12 of 16, 18-2	7146'	May 8, 1938	Oct. 5, 1938
Consolidated No. 1	14 of 20, 18-2	7986'	Feb. 7, 1938	Oct. 10, 1938
Richwell No. 1	5 of 16, 18-2	7132'	May 6, 1937	Oct. 14, 1938
Davies No. 4	10 of 29, 18-2	7232'	May 13, 1938	Oct. 19, 1938
Royal Canadian No. 2	4 of 16, 18-2	7185'	Mar. 6, 1938	Oct. 23, 1938
Okalta No. 6	3 of 30, 18-2	10209'	July 12, 1937	Oct. 28, 1938
Anglo-Canadian No. 1	16 of 31, 18-2	8222'	June 7, 1938	Nov. 5, 1938
Royalite No. 34	7 of 5, 19-2	7500'	July 12, 1938	Nov. 23, 1938
Command No. 1	14 of 29, 18-2	7908'	May 8, 1937	Nov. 27, 1938
Pacific (West Turner) No. 3	6 of 32, 18-2	7850'	April 20, 1938	Nov. 29, 1938
Intercity No. 1	11 of 20, 18-2	8045'	Jan. 29, 1938	Dec. 8, 1938
Extension No. 1	14 of 17, 18-2	8020'	April 26, 1938	Jan. 2, 1939
Home-Millarville No. 2	6 of 33, 20-3	8495'	April 9, 1938	Jan. 8, 1939
Anglo-Canadian No. 3	10 of 17, 18-2	7736'	July 16, 1938	Jan. 16, 1939
D. and D. No. 1	12 of 9, 18-2	7388'	Aug. 23, 1938	Feb. 8, 1939
Royalite No. 36	13 of 32, 18-2	7910'	Sept. 5, 1938	Feb. 8, 1939
Royalite No. 37	11 of 5, 19-2	7628'	Sept. 7, 1938	Feb. 16, 1939

\*Note:—Legal sub-division 4 of section 21, township 18, range 2.



A burning gas flare in the Valley connected with several producing wells

*Divisional Inspection of Wells.*—Prior to July 1st, 1939, when the Conservation Board was set up, an engineer was located in Turner Valley, where he made at least weekly visits to all drilling wells and made a monthly routine check-up of all orifice meters in use for measuring gas withdrawals. Another engineer

in Calgary kept supervision over drilling wells outside Turner Valley. A chemist and his assistant made quarterly tests of the wetness (recoverable natural gasoline) in gas leaving Turner Valley separators of wells on Crown lands, and in addition made analyses of oil field waters and oils.

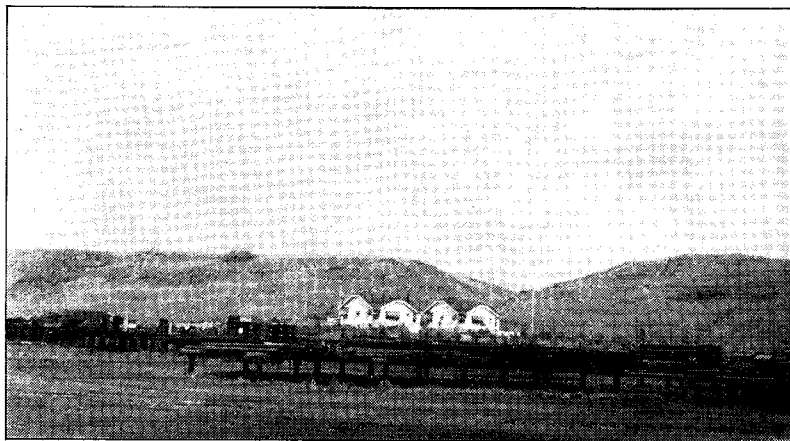
#### GEOLOGICAL AND CHEMICAL LABORATORIES

*Geological Laboratory.*—The work of the geological laboratory includes the examination of the drill cuttings which are received from all drilling wells at intervals of ten feet or less. From a study of these cuttings the formations penetrated by the bit are correlated. Particular attention is paid to an examination of the porosity in the limestone producing horizons. Some cores were also examined either in the field or in the laboratory.

*Chemical Laboratory.*—The chemical laboratory is now equipped to make tests on crude oil, water and rock samples, and thus assist the operator in some of his drilling and production problems. Among the samples received in the laboratory during the year were 27 samples of crude oil and 33 samples of water, while 21 samples of road oil were tested for the Highways Branch of the Department of Public Works.

Complete analyses were made on several samples of crude oil and reports were made on a large number of oil shows. The number of water analyses available for study is gradually increasing. These analyses are increasingly valuable in helping the operator in his problems of shutting off water horizons.

The field work of the laboratory includes the testing of the separator tail gas from both oil and gas wells for the amount of recoverable natural gasoline in the gas. During the year some 280 charcoal tests were made for this purpose on wells situated on Crown lands.



Field headquarters of a Turner Valley operating company



TABLE  
ANALYSES OF TURNER VALLEY CRUDE OILS

Gravity ° A.P.I.	Gasoline Naphtha	Kerosene	Gas Oil	Lube. Fraction	Residuum	Loss	Sulphur % Weight
39.0	38.6	6.1	25.2	16.7	12.7	.07	0.50
40.0	36.8	5.5	24.6	18.2	13.5	1.4	0.46
40.2	37.0	12.1	18.5	18.2	12.0	2.2	0.45
41.5	38.1	6.1	23.5	20.7	8.3	3.3	0.47
41.7	38.1	5.6	23.3	18.3	12.4	2.3	0.45
42.6	38.5	11.8	18.0	17.2	11.6	2.9	0.49
42.8	41.5	6.1	24.4	17.2	8.9	1.9	0.45
43.0	49.6	6.9	23.5	13.4	5.0	1.6	0.28
43.0	42.0	6.3	22.9	15.5	11.7	1.6	.....
43.6	43.0	6.2	24.6	15.6	9.0	1.6	0.56
43.8	45.1	13.8	18.3	15.6	6.1	1.1	0.44
44.7	41.4	11.6	17.3	16.8	9.7	3.2	0.48
45.4	50.5	15.4	17.2	11.0	4.9	1.0	0.47
45.8	43.9	13.1	18.4	14.8	7.4	2.4	0.51
45.8	46.4	5.9	22.2	15.5	6.0	4.0	0.42
46.0	46.1	12.9	17.6	14.4	6.5	2.5	0.44
46.1	52.0	7.1	21.5	10.9	5.9	2.6	0.27
46.5	48.9	13.8	16.4	12.6	6.1	2.2	0.30
47.8	47.4	13.6	16.6	12.0	8.3	2.1	0.58
49.9	60.4	12.1	13.3	9.7	2.8	1.7	0.43
50.4	62.4	11.7	12.3	8.4	3.3	1.9	0.50
59.5	88.2	3.8	1.9	.....	4.2	1.9	0.34

NOTE.—The above analyses were made by the modified Hempel distillation method. The base of all samples reported above is "intermediate." Wax is usually present. Carbon residue is small.

#### GAS WITHDRAWALS FROM TURNER VALLEY

Our present knowledge of the field suggests that gas withdrawals from the limestone oil well are derived from an intimate mechanical mixture of oil and of gas which was, at least when the oil zone was tapped, entirely in the liquid phase. The fluids are stored in pores which vary from microscopic size to vugs of considerable dimensions, and the portion which appears at the surface as gas cannot in many cases dissociate itself from the portion which appears as oil until produced. As pressure decreases, dissociation may take place in the larger vugs, the gas finding its way to wells and leaving oil behind. Some wells produce both from the gas cap and from the liquid phase zone, and in such cases it becomes impossible to distinguish the amount of gas recovered from the gas cap from the amount coming in with oil. In spite of these uncertainties as to source of gas, it is of interest to attempt an estimate of withdrawals from the liquid phase zone as distinguished from the gas cap. In making this estimate, the basis has been essentially the gas-oil ratio, using as a dividing line the criterion set by the Conservation Board of 31 Mcf/bbl. On this basis, total gas drawn to the end of the fiscal year was:—

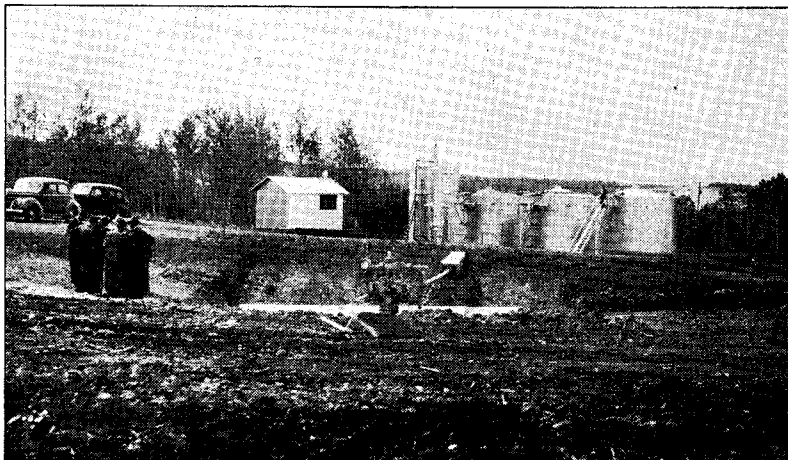
Gas Cap .....	1,005,198,000 Mcf.
Oil Zone .....	33,600,000 Mcf.
<b>TOTAL .....</b>	<b>1,038,798,000 Mcf.</b>

Of this it is estimated that 168,395,000 Mcf. has been used as fuel, much of it in a rather wasteful manner, and the balance went to flares.

#### DRILLING PROGRESS

During the fiscal year the following footage was drilled:—

	Turner Valley	Foothills west of Turner Valley	Rest of Province	Total
April-June .....	89,228	2,093	13,628	104,949
July-September .....	72,283	5,171	14,061	91,515
October-December .....	55,732	435	16,122	72,289
January-March .....	78,097	749	20,326	99,172
<b>TOTALS .....</b>	<b>295,340</b>	<b>8,448</b>	<b>64,137</b>	<b>367,925</b>



Home Millarville No. 2, storage tanks in northern Turner Valley

#### DRILLING ACTIVITY OUTSIDE TURNER VALLEY

*Aldersyde Area.*—New Valley ran casing but did no drilling below the former depth of 8450 feet.

Sentinel carried the hole to about 7320 feet.

Anglo Canadian drilled its Twin Dome No. 1 in 7 of 16, 21-28, W.4, to 6944 feet and abandoned on finding water in the limestone.

Ranchmen No. 1 in 16 of 13, 20-29, W.4 carried on some fishing operations above 7230 feet.

*Atlee.*—The Dominion Department of Agriculture through the Prairie Farm Rehabilitation, drilled a No. 2 well in 15 of 10, 23-7, W.4 and obtained a small gas flow, possibly suitable as fuel for pumping water for irrigation purposes. Depth 1305 feet.

*Bragg Creek.*—Elbow No. 1 in 11 of 35, 22-5, W.5 carried its depth to 5582 feet and decided to abandon.

Moose No. 2 in 8 of 29, 22-6, W.5 was deepened to 1622 feet.

*Brazeau.*—Home No. 1 in unsurveyed territory, about 16 of 7, 43-17, W.5 reached 5052 feet at the end of March and drilling continued.

Ram River No. 1 in unsurveyed territory about 12 of 26, 38-12, W.5 reached 1104 feet with diamond drill at the end of March and was later abandoned at 1346 feet on encountering unfavourable geological conditions.

*Dunn.*—Blackfoot-Ribstone No. 1 in 7 of 28, 43-2, W.4 drilled to 2038 feet without obtaining oil or gas production, and suspended operations.

*Ghost.*—Grease Creek No. 1 in 2 of 13, 29-7, W.5 reached 2195 feet at the end of March and drilling was continuing.

*Highwood.*—Anglo Canadian No. 2 in 13 of 33, 16-2, W.5 drilled hoping to find an extension to Turner Valley and suspended at 6280 feet.

Willow Creek Holding Company started a hole in 8 of 19, 15-2, W.5 and suspended operations at 311 feet.

Green Valley-Banner No. 1 in 6 of 34, 17-3, W.5 carried its depth to 6936 feet and suspended operations.

*Lethbridge.*—Northwest Company drilled its Lethbridge South No. 1 in 8 of 1, 8-21, W.4 to 4095 feet, found water in the limestone and minor showings of oil, and abandoned.

Lethbridge Petroleum and Refineries No. 1 in 12 of 11, 8-22, W.4 was deepened to 2915 feet and suspended.

*Lloydminster.*—Lloydminster Royalties No. 1 in 4 of 36, 49-1, W.4 was drilled to 1922 feet, obtaining production of heavy oil of about 14°. Some oil was obtained by bailing and preparations were under way for installation of pumping equipment. This discovery created considerable interest and several new locations were made for future drilling.

*Lundbreck.*—Marjon-Lundbreck No. 1 in 3 of 4, 10-2, W.5 reached a depth of 6204 feet shortly after the end of the fiscal year and decided to abandon.

Maxmont No. 1 in 10 of 20, 9-2, W.5 continued drilling with cable tools and at the end of the year reached a depth of 8047 feet with open hole from 2857 feet, which is quite a remarkable record.

*McMurray.*—The salt plant built by Industrial Minerals was taken over by Dominion Tar and Chemical Company and another prospect hole was drilled in 2 of 10, 89-9, W.4 finding 211 feet of salt below 723 feet.

*Medicine Hat.*—Old wells have been reconditioned and repaired, but no new holes drilled. Some old wells in the area tributary have been abandoned.

*Milk River.*—Anglo Canadian Bridge Dome No. 1 in 13 of 4, 2-13, W.4 drilled to 2497 feet, obtaining only a showing of heavy black oil, and abandoned.

Range No. 3 in 15 of 20, 1-11, W.4 obtained a flow of gas at 2564 feet, but at 2612 feet there was water and in trying to shut off water the gas flow ceased. Plans were made to abandon. Subsequent to the end of the fiscal year hole was made to 2765 feet before abandoning.

*Pouce Coupe.*—The Batcheller test well in 10 of 24, 79-12, W.6 was drilled to 1224 feet for the purpose of studying formations.

Guardian No. 1 in 7 of 7, 80-12, W.6 was drilled to 2463 feet and shut down for the winter. Negotiations with eastern United States parties for financing a deep test were under way at the end of the year.

*Spring Coulee-Del Bonita.*—Terminal No. 1 in 15 of 18, 1-21, W.4 was reworked, cemented and gun perforated, with some production, gas containing a little oil.

Lyons-McIntyre No. 1 in 14 of 19, 3-21, W.4 was drilled to 3500 feet and suspended with lost tools in the hole.

*Steveville.*—Anaconda No. 1 in 15 of 9, 22-12, W.4 reached a depth of 2505 feet and was preparing to resume operations after being shut down part of the winter.

Anglo Canadian No. 1 in 2 of 13, 21-12, W.4 drilled to 3198 feet obtaining a large flow of gas at the top of the Blairmore with a little water and oil showings, from the same horizon, and salt water with a show of oil from the top of the palaeozoic. New technique was started by this company, of coring all prospective horizons, and cementing casing on bottom, after which tests of the well from bottom upward were conducted by gun perforating.

Anglo Canadian No. 2 in 4 of 14, 20-11, W.4 was started just before the end of March.

*Stony.*—Roxana No. 1 in 5 of 18, 24-7, W.5 was drilled to 3924 feet and after a long shut down time was preparing to resume in the summer of 1939.

*Sundre.*—Petroleum Structures No. 1 in 4 of 2, 33-7, W.5 was abandoned at 5216 feet on encountering a thrust fault which would have made the well so deep as to make production improbable.

Altoba-Clearwater No. 1 in about 5 of 31, 34-9, W.5 reached a depth of 2056 feet at the end of March using diamond drill and had obtained encouraging showings of oil and gas. Operations were continuing.

*Taber*.—Plains No. 4 in 15 of 25, 9-17, W.4 was drilled to 3557 feet without obtaining oil production.

Plains No. 5 in 2 of 36, 9-17, W.4 was drilled to 730 feet and suspended when No. 4 proved barren.

Border Petroleum resumed operations in the well originally drilled by Canadian Western as Barnwell No. 6 in 5 of 32, 9-17, W.4 and were preparing to deepen to the horizon where Plains No. 2 obtained oil.

North Taber Royalties No. 1 in 7 of 10, 11-15, W.4 drilled to 3070 feet and suspended temporarily. Operations after the end of March carried the depth to 3150 feet.

*Vermilion*.—Waintown Gas and Oil, Vermilion No. 1 in 16 of 26, 50-7, W.4 was drilled to 2099 feet without obtaining a satisfactory gas supply and abandoned.

*Viking*.—Well servicing and repair was carried on in this valuable gas field and No. 3 was abandoned.

*Wainwright*.—Montreal Alberta No. 1 in 2 of 15, 45-7, W.4 resumed and was preparing to deepen from about 3500 feet.

Pacalta-Battleview No. 1 in 3 of 5, 48-5, W.4 carried its depth to 2409 feet and suspended.

*Waterton-Pincher Creek*.—Anglo Canadian-Castle River No. 1 in 4 of 11, 6-1, W.5 was drilled to 7189 feet and operations discontinued on encountering unfavourable geological conditions.

*Willow Creek*.—Anglo Canadian-Savanna Creek No. 1 in 5 of 20, 14-4, W.5 was started with diamond drill and after finding progress difficult was preparing to change over to cable tools.

At the end of the fiscal year, completions in Turner Valley stood as follows:—

Gas wells drilled to limestone completion .....	116
Gas wells abandoned .....	13
Gas wells capable of producing .....	103
Oil wells drilled to limestone completion .....	71
Oil wells producing, end of fiscal year .....	70
(One well, Dalhousie 8, abandoned. Never produced.)	
Wells drilled to limestone at point below oil .....	1

#### OIL PRODUCTION IN ALBERTA

Fiscal year, 1938-39

	Barrels	Value of Sales
Turner Valley, oil wells, separators .....	6,011,112	\$7,320,072
Turner Valley, gas wells, separators .....	112,128	129,083
Turner Valley, natural gasoline, plants .....	467,390	933,498
Turner Valley, shallow crude .....	9,038	12,978
Red Coulee .....	13,777	11,931
Wainwright .....	12,145	11,338
Miscellaneous .....	25,731	13,358
<b>TOTALS</b> .....	<b>6,651,321</b>	<b>\$8,432,258</b>

	Barrels
Total oil production 1914-1937 (See Schedule of Wells) .....	13,772,302
Produced in 1938 .....	6,742,039
Produced January-March, 1939 .....	1,222,544
<b>TOTAL</b> .....	<b>21,736,885</b>

NUMBER OF WELLS PRODUCING OIL  
Fiscal year, 1938-39

Turner Valley limestone oil wells .....	70
Turner Valley limestone gas wells .....	103
Turner Valley shallow crude wells .....	4
	177
Red Coulee .....	7
Wainwright .....	6
Miscellaneous—Dina .....	2
—Taber .....	1
—Moose .....	1
—Lloydminster .....	1
	5
<b>TOTAL</b> .....	<b>195</b>

In addition, some oil was produced at Twin River, but reports were not received in time to include with publications made at the time.

*Turner Valley gas wells.*—Total shown includes all wells capable of producing since gas quotas were issued in that manner. Some of these wells did not actually come into operation.

GAS WELLS (except Turner Valley)  
as at end of fiscal year

Medicine Hat-Redcliffe .....	46	Battleview .....	1
Bow Island .....	11	Fabyan .....	2
Foremost .....	6	Brooks .....	6
Milk River area .....	3		
Viking .....	21	<b>TOTAL</b> .....	<b>99</b>
Kinsella .....	3		

OIL USED IN ALBERTA IN 1938  
(Quantities in Barrels)

Stock, January 1st, 1938—	
Refined .....	613,358
Crude .....	242,431
Produced in Alberta .....	6,742,039
Imports except lubricants—	
From U.S., refined .....	325,303
From B.C., refined .....	44,657
From U.S., crude .....	232,776
From B.C., crude .....	33,953
	636,689
<b>To account for</b> .....	<b>8,234,517</b>
Exports (mostly to Saskatchewan)—	
Refined .....	787,424
Crude .....	3,258,532
	4,045,956
Fuel oil sold in Alberta .....	2,255,778
Loss in handling and refining (by difference) .....	1,034,002
Stocks, Dec. 31st—Refined .....	539,610
Crude .....	359,171
<b>Accounted for</b> .....	<b>8,234,517</b>

CRUDE OIL HANDLINGS

Stock, Jan. 1st, 1938 (Crude only) .....		242,431
Oil produced in Alberta .....		6,742,039
Less separators at gas wells .....	121,439	
Less plant recoveries .....	531,434	652,873
Leaves crude produced .....		6,089,166
Imports—From U.S. direct .....	232,776	
—Via B.C. .....	33,953	266,729
<b>To account for</b> .....		<b>6,598,326</b>
Crude exports .....		3,258,532
Crude stocks, Dec. 31st .....		359,171
By difference, crude refined in Alberta except crude from gas wells, etc. ....		2,980,623
<b>Accounted for</b> .....		<b>6,598,326</b>

Loss in handling and refining, 1,034,002, which is 34.7% of crude throughput. Fuel oil recovered is 65.3% of throughput. This compares with an average recovery of similar products in U.S. refineries of about 63%, made up of gasoline 45%, kerosene 5%, distillates, etc., 13%. Similar division of Alberta refined products is not available.

## DEPARTMENT OF LANDS AND MINES

## GAS CONSUMPTION IN ALBERTA 1938-39

		Thousands of cubic feet
From Foremost .....		4,362
From Turner Valley:		
Gas Company .....	6,260,916	
Refinery .....	1,362,415	
Storage and compressor fuel .....	1,314,357*	
Bow Island town .....	51,678	
Field use (largely estimated) .....	10,045,129	
		19,034,495
Brooks .....		49,319
From Wainwright—to town supply .....	98,269	
Field use (estimated) .....	19,000	
		117,269
From Viking to Edmonton and towns .....		3,388,401
Medicine Hat .....		1,979,484
Redcliff .....		706,000
Range—exported to Montana .....		307,652
Red Coulee—field use including export to Montana .....		39,918
TOTAL .....		25,626,900

\*This does not constitute consumption, but is shown as it affects the general situation. Storage in Bow Island field ceased early in February, 1939 after  $8\frac{1}{2}$  years of injection during which about  $13\frac{1}{4}$  million Mcf. (measured as at 14.4 pounds and 60°F.) of gas was injected.

## PRESSURES IN GAS FIELDS, 1938

Turner Valley—810 to 392 pounds (no average attempted)  
 Viking—533 (average)  
 Medicine Hat-Redcliff—No tests (408 pounds in 1937)

In other gas fields so little gas was drawn that tests were of insignificant value.

## ESTIMATE OF WITHDRAWALS AND WASTE OF GAS FROM TURNER VALLEY

	Mcf. Drawn	Mcf. Wasted
To end of March, 1935 .....	717,110,000	614,050,000
1935-36 .....	90,250,000	78,020,000
1936-37 .....	87,000,000	74,710,000
1937-38 .....	82,119,000	59,566,000
1938-39 .....	63,093,000	44,057,000
TOTALS .....	1,039,572,000	870,403,000



Construction of pipe-line from Turner Valley to Calgary

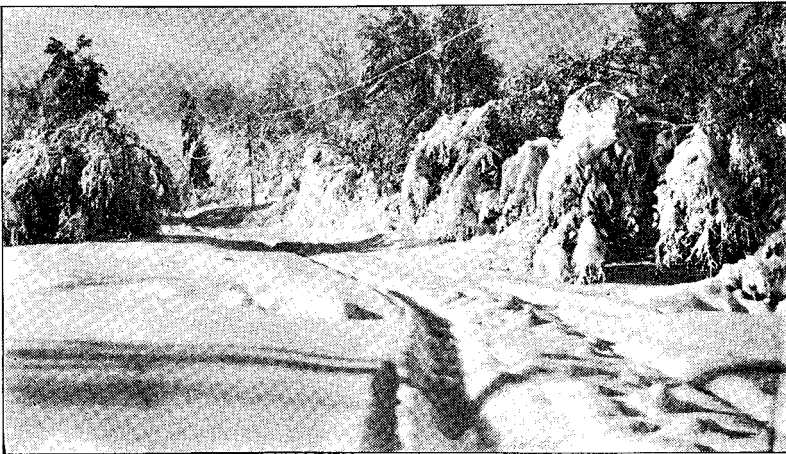
## Forestry

### REPORT OF THE DIRECTOR OF FORESTRY, T. F. BLEFGEN

The fiscal year of 1938-39 does not permit of an expression of satisfaction with respect to the protection of forests or the disposal of forest products. Year after year there has been noted in the annual report deficiencies in the matter of forest protection which have been, and continue to be, very apparent. With respect to the utilization of forest products either within the provincial boundaries or beyond those boundaries, the situation has shown no improvement. These matters are dealt with in detail in the body of this report.

There is apparently little that can be done locally to improve conditions in the lumber industry, lumbering being dependent on the demand for forest products. A great deal, however, could be done to effect a large improvement in the matter of forest protection and if losses as a result of fire are reviewed covering the past twenty years, it will be apparent that more definite plans must be made, and that such plans must become effective if the remaining timber resource in this Province is to be protected and to be available for present and future generations.

In reports immediately preceding, the danger of large fire outbreaks in the Northern Alberta Forest District has been pointed to, principally for the reason that in this large district is to be found the major portion of forest resource and in which there is by far the largest percentage of timber operations and, to a great extent, the present and future supplies of accessible merchantable timber. Likewise in this large district is to be found the major portion of the remaining wild life of the Province. By this is meant both big and small game and fur bearers, and it is in this large district that at the present time forest protection organization does not meet the requirements of ordinary year to year hazard. This being the case, it can be well understood as to what occurs when an abnormal hazard is present and, regardless of the fact that when this does occur and regular seasonal staff is augmented by assisting patrolmen, the fact remains that the temporary staff, by reason of the terms of employment, lack experience and training.



Winter scene, Swan Hills area, northern Alberta

More headway in the matter of forest protection improvements has been made through the provision of a look-out system covering the Edmonton, Edson and Athabaska Divisions. Good results will be obtained from this detection service even in the present circumstances of ranger staff strength for the most up-to-date method of communication, namely radio, is employed. The full benefit of the detection service being organized will not be obtained until a sufficient staff of rangers and rangers' assistants is employed to permit of proper coverage within acceptable time limits. Regardless of the fact that the field staff of the Forest Service is considerably under-staffed, it is again necessary to point to the services rendered by all individuals. In practically all cases, the members of the field staff have toiled unremittingly, putting in exceptionally long hours and showing a loyalty to the cause of forest protection that is highly commendable.

The Forest Nursery, operations based mainly at the Oliver Mental Institute, continues on a highly satisfactory plane. While the output is somewhat limited, the experience and training being gained through this nursery operation will permit of a large expansion just as soon as that may be decided upon. In the meantime, it is serving a very useful purpose in providing a supply of planting stock to the other Government institutions and to numerous settlers and farmers.

#### FOREST PROTECTION

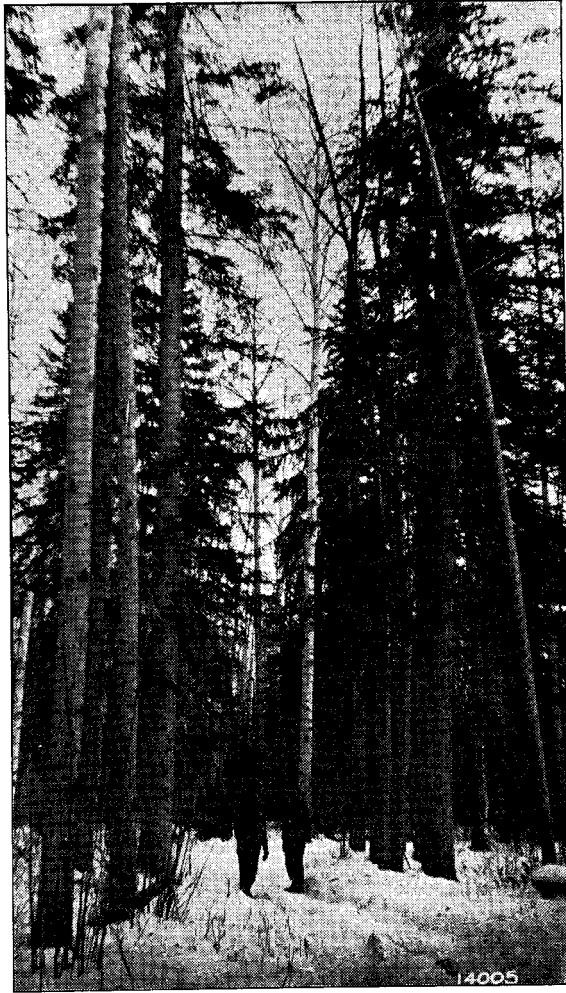
In previous Annual Reports the situation respecting forest protection has been dealt with in a definite way. In particular the Northern Alberta Forest District has been referred to, the mounting hazard from settlement discussed and protection deficiencies indicated. Protection staff strength is lower than for many years, whereas the danger to forest cover has increased a thousandfold. Until remedial measures are taken no improvement should be looked for in protection accomplishment.

*Fire Season.*—In the winter of 1937-38 the snowfall, generally speaking, was somewhat normal and was followed by a comparatively early, dry spring season, particularly in Northern Alberta. This condition followed the fall season of 1937 during which many extensive fires occurred as a result of extremely dry weather, and thus it will be understood that at the commencement of the spring season of 1938, the Forest Service was faced with abnormal conditions. Relief from drought conditions was experienced in the southern mountain region but from the



Reproduction of white spruce—Mile 20 Holmes trail





A stand of spruce, Clearwater Valley near McMurray

Athabaska Valley north there occurred little or no relief. On the contrary, the drought became intensified as the summer progressed and this condition covered the entire northern part of the Province.

*Fire Prevention.*—If success is to be attained in the matter of forest protection, greater stress is necessary on fire prevention. That requires, first, up-to-date legislation; second, the proper enforcement of this legislation; third, complete co-operation of the general public; fourth, proper coverage of all forest districts. The more definite effort toward fire prevention will most certainly be reflected in two important items:

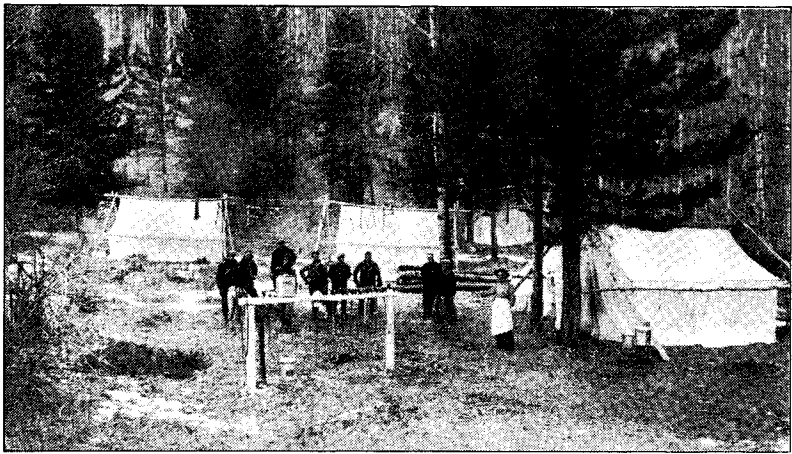
1. The loss through the destruction of timber will be greatly reduced.
2. A large reduction will be evident in the matter of fire-fighting expenditures.

To the extent possible under existing circumstances of staff appropriation, detection services, etc., fire prevention is a major objective. One of the most effective means of preventing losses by fire will be the more definite control of

burning operations by settlers and the more definite control of forest travel. The first item is being dealt with to the extent possible through the medium of the Free Burning Permit.

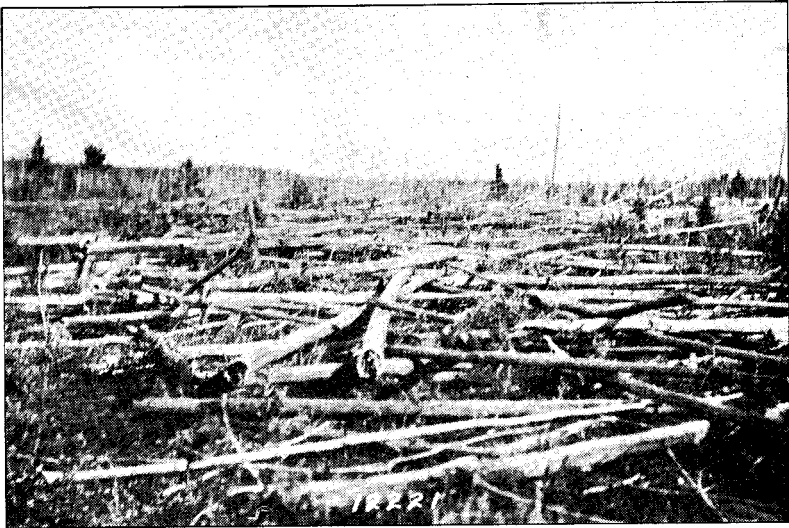
BURNING PERMITS ISSUED, PROVINCE OF ALBERTA, 1938			
By the Forest Service:			
Cypress Hills .....		37	
Crowsnest-Bow River .....		438	
Clearwater .....		13	
Brazeau-Athabaska .....			
By the staff of the Forest Reserves .....			488
Edmonton .....		119	
Edson .....		35	
Athabaska .....		197	
Bonnyville .....			
McMurray .....			
Slave Lake .....		172	
Grande Prairie .....		180	
Peace River .....		52	
By the staff of the Northern Alberta Forest District .....			755
Sub-total .....		1,243	1,243
By Outside Agencies:			
Honorary Fire Guardians:			
Edmonton .....		99	
Edson .....		191	
Athabaska .....		79	
Bonnyville .....		23	
McMurray .....			
Slave Lake .....		135	
Grande Prairie .....		209	
Peace River .....		389	
Fire Guardians in Municipal Districts .....			1,125
Royal Canadian Mounted Police .....			641
Sub-total .....		2,522	2,522
TOTAL .....			3,765

PROSECUTIONS AND CONVICTIONS, PRAIRIE FIRES ACT, 1938			
	Instituted by Forest Service	Instituted by other Agencies	Totals
Number of prosecutions .....	43	51	94
Number of convictions .....	40	43	83



Camp Hay River wagon road—Mile 20

*Fire Detection.*—Mention has been made of the provision of fire detection services in the Edmonton, Edson and Athabaska Divisions of the N.A.F.D. An intensive coverage is not being sought. On the other hand, visual coverage is believed to be ample, and with the completion of the look-out units planned and the provision of two-way radio communication equipment for look-outs, rangers and administrative control points, a vast improvement will have been made and the benefits of this improvement will be immediately noticeable. Regardless of the effort towards fire prevention, detection services in varying intensity of coverage will always be required, for it is unlikely that the careless person will be entirely eliminated or that the occasional fire will not break from the control of the settler. Finally, there always exists the hazard from lightning. The detection service now in operation or being planned should be extended as rapidly as funds permit.



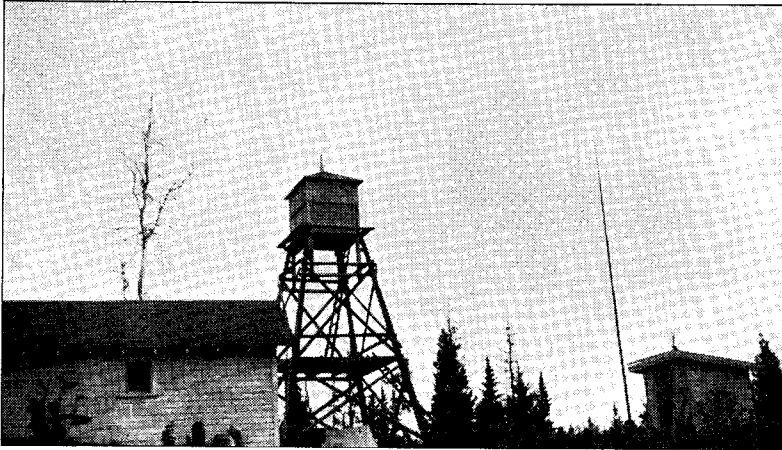
Results of a camp-fire not properly extinguished

The use of radio communication in connection with forest protection and administration was started during the summer of 1938 with the installation of radio equipment at five lookout towers located at the following points:—Buck Mountain Lookout—south-west quarter section 13-47-6, west 5th meridian; Whitecourt Lookout—south half 21-58-12, west 5th meridian; Lovett Lookout—south-east quarter section 21-47-19, west 5th meridian; Carrot Creek—section 33-51-13, west 5th meridian, and Mayberne Lookout—south half 30-56-18, west 5th meridian. Approximate altitudes are as follows: Buck Mountain 3100'; Whitecourt 3500'; Lovett 5000'; Carrot Creek 3700' and Mayberne 4800'. All these towers, with the exception of the Lovett tower, were erected during the period 1933-38 in anticipation of the establishment of radio communication. The Lovett tower, which is situated in the Brazeau-Athabaska Forest Reserve, has been in use for several years and is linked with the telephone system through that forest.

The Buck Mountain, Whitecourt and Mayberne towers are of standard wooden tower construction, composed of round timbers properly braced and guyed, and are approximately forty feet high to the floor level of the cupola. The Carrot Creek tower is a standard lookout tower of steel, construction eighty feet high.

An effort was made to standardize the lookout towers and their associated buildings as much as possible, and with the exception of the Carrot Creek tower which has an octagonal cupola at the top, this idea was carried out. The wooden towers are topped with an enclosed cupola approximately seven feet square with sliding windows on all four sides. The corner posts of the cupola are reduced in size sufficiently to give a wide angle of vision from any one window which overlaps that from an adjacent window. The roof is shingled and securely braced at four corners by means of wire ties fastened to the corner posts and protection from lightning is obtained by means of a suitable conductor system which is grounded at the four corners of the tower. Wooden shutters, opening outward and hinged at the top, offer protection from hail and sun without obscuring vision in any way.

Inside the cupola a slide-top table is permanently mounted at a suitable height from the floor and a  $360^\circ$  protractor is properly oriented upon it, which in conjunction with a sighting vane mounted above the protractor, allows accurate sights to be taken on smokes as soon as they are noticed. In addition, the cupola contains the radio receiver and remote control panels for the transmitter and power supply.



Buck Mountain lookout tower

The living quarters,  $12' \times 16'$ , with double walls and floor, and an engine house  $5' \times 5'$ , complete the standard arrangement of buildings at all lookout points. It was originally intended to have the living quarters constructed with a single layer of drop siding over the two-by-fours, but this type of construction was found to be inadequate so the design was changed to allow for sheathing, paper and drop-siding. Buildings completed prior to this change were modified by the addition of a complete coat of shingles. All construction work, tower construction, carpentry, painting, etc., was done by Forestry personnel.

The first radio installation to be completed was at Buck Mountain, where, prior to the installation work being commenced, prospective lookout-men radio operators, selected from the Youth Forestry Training Project personnel, had been given a brief course of training in the theory and practice of radio operating. These men were then utilized in assisting with the actual work of installation.

A brief description of the equipment is given below. The power source consists of a gasoline driven alternator, capable of an output of 750 watts, 110 V,

60 cycle A.C., which is suitably mounted in the engine house. Power is taken by means of flexible conduit to both the living quarters and the cupola for use at the transmitter and receiver respectively. In addition, the necessary control wiring is run between the engine house, living quarters and cupola in order that the motor may be started or stopped from either of the latter points.

Two antennae are provided, a half wave dipole for transmission, and a doublet for reception. The lead-in from the dipole is taken into the living quarters through a suitable protective device to the transmitter, and the lead-in from the doublet receiving antenna runs direct to the cupola. The necessary control wiring is run between the transmitter and its control panel in the cupola to allow for its being remotely controlled. The transmitter has a power output of 50 watts on phone and 200 watts on C.W. and is crystal controlled on both operating frequencies. The receiver, a standard-all wave Superheterodyne, may be operated either in the cupola or the living quarters, and a simple carrier system was devised to allow the receiver to be easily transported from the ground to the cupola or vice versa.

The masts for both antennae consist of peeled poles, suitably guyed, and are arranged, where the terrain permits, so that the various antennae at each station are more or less directional. The ground systems vary with locale, but in most cases good enough ground conditions were found to warrant the use of a ground plate. In others, a radial ground is used, and in some cases both.

The remaining installations were completed in the following order, Mayberne, Carrot Creek, Whitecourt and Lovett, and in a similar manner to that already outlined, although the antenna layout and the location of the buildings varied slightly with each location. Separate problems of interference elimination were also encountered with each installation.

The transportation of equipment to each tower site in most cases presented a major problem. To carry fifteen hundred pounds of delicate equipment over several miles of secondary trails is not an easy undertaking, and although in some cases it was possible to get a lightly loaded wagon all the way to the tower site, in certain cases other methods had to be adopted. As the equipment did not



Sample of timber in the Clearwater Reserve



End view of brush which has been properly piled

readily lend itself to pack-horse transport, some individual pieces weighing in the order of four hundred pounds, it was necessary to utilize, in three separate instances, the form of conveyance known as the stone-boat or sloop. At Mayberne Lookout, approximately thirty-one miles by road and trail from Edson, it was necessary to use three methods of transportation. The first fourteen miles were covered by truck and the equipment was then moved by wagon, a half truck-load at a time, to a point three-quarters of a mile from the town-site from which it was taken one or two pieces at a time on a stone-boat to the actual site. A similar method was used at Carrot Creek, about eighteen miles from the railway. By using old winter roads it was possible to take the complete load about half way to the tower site. Half the load was left, and the remainder taken to a point about a mile from the tower site, the wagon returning for the remainder on the following day. A stone-boat was again used to take the equipment over the last mile for which a new trail had to be cut. Despite the exceptional bumping and jarring received by the equipment due to this method of transport, no serious damage was done and any necessary minor repairs were made without difficulty at the station-site.

The question of interference elimination was an annoying problem in each case. At Buck Mountain, the dry sandy soil prevented good ground connections being made between various portions of the equipment and necessitated the installation of a considerable number of filtering devices. A similar condition was found at the Lovett station, but the other locations afforded slightly better ground connections with a corresponding reduction in the number of filtering devices required. Another problem has since arisen in the fact that the ground resistance at most points varies considerably throughout the season, which causes a noticeable change in noise level from month to month. A method of overcoming this condition will be evolved during the coming year.

Despite the fact that the Lovett installation was not completed until September, the system as a whole handled a total of 4,506 messages and 41,562 words before the end of the season. This traffic consisted of a daily exchange

of weather information over the entire system and also the passing of necessary information with regard to fires sighted. Daily reports from the lookout system were passed to the Head Office through the R.C. Signals Radio Station in Edmonton.

In addition to the radio equipment installed in the towers, two rangers in the vicinity of the Buck Mountain station were equipped with small portable receivers with which they were able to receive daily broadcasts of fire conditions from the Buck Mountain tower. These receivers were found extremely useful and were carried by the rangers concerned at all times.

*Radio Equipment.*—Upon completion of the lookout tower installations the Assistant Director of Forestry, accompanied by the Radio Superintendent, travelled to Spokane, Washington, and later to Portland, Oregon, to observe the portable radio transmitting and receiving equipment in use in the U.S. Forest Service.

The radio laboratory, under the direction of Mr. H. E. Simson of the U.S. Department of Agriculture, Forest Service, was a model of completeness, and all necessary equipment was available for the complete construction of almost any type of transmitter or receiver. After seeing the entire cycle of operations in the production of such equipment it was decided to purchase a suitable number of each of two types, viz. a portable, battery powered transmitter-receiver for ranger use, and a more powerful mobile type of transmitter for installation in cars or trucks.

It was considered that this visit was of inestimable value to this Department, not only because of the information gained, but also on account of the personal contacts effected with Mr. Simson and his staff, and with the manufacturers of this type of equipment. There is now at the disposal of this government a source of information with a wealth of practical experience, and the exchange of ideas on communication methods between the two countries it is hoped will be beneficial to both.

Very little actual maintenance work was required to keep the radio system in operation, although every effort was made to foresee possible sources of equipment failure, and take the necessary steps to combat them before they actually occurred. The lookout-men radio operators functioned more efficiently than was expected, considering the extremely scanty training they had had prior to commencing actual station operation, and the operation of the communication system as a whole was entirely satisfactory. As the equipment becomes older, more maintenance will of course become necessary.

Upon the termination of the fire season the radio equipment at each tower was dismantled and stored at the tower site, care being taken that none of it should suffer from frost or exposure. This work was mainly done under the direct supervision of the Radio Superintendent to ensure that all possible precautions for avoiding damage to the equipment were taken.

During the month of December the portable equipment purchased in Portland was received and tested. Later, a new transmitter for fixed station use more suited to the Forestry's requirements was designed and constructed by the Radio Superintendent, and further tests under actual field conditions were carried out, using this transmitter and the various portable units. Tests were also carried out on a Marconi type receiver for automobile use.

Certain changes in the equipment at the tower-sites which became advisable after observation of the equipment in operation, were recommended, and will be made prior to the commencement of next season's operations, and the necessary fuel supplies for the operation of the various units were forwarded to the tower-sites in order to avoid, as much as possible, such difficulties in transportation as might arise at the start of the fire season.



Spruce along the Athabaska River

All necessary preparations for the re-opening of the various lookout stations and for the distribution of the portable units now on hand were made prior to the beginning of the fire season. In addition, every effort was made to assist Forestry personnel to train themselves in the operation of such radio equipment as might be allotted for their use and preliminary surveys of proposed station sites were made with a view to obtaining necessary information on local conditions prior to the actual installation of equipment.

*Fire Suppression.*—In that portion of the Province, north of township 58, the 1938 season was one of the driest on record. The spring of the season opened up with dry, hot winds, following a winter of exceptionally light snowfall, which created an almost uncontrollable condition for the spread of fires.

Added to this hazard the Forest Service was forced to contend with the condition in the Grande Prairie and Peace River country, created by new settlers who had located in bush country, a number having migrated from the drought areas in the southern part of the Province. These settlers did not realize the havoc wrought by fires to the soil humus in some instances, while others were only interested in clearing the land for cultivation, and not having had previous experience with brush burning or land clearing, having come from the prairie sections, they started fires on their own land, in most cases under permit, in the early part of the season, but did not guard them sufficiently to prevent their spread, and later under cover of the blanket of smoke that covered the whole district, a great number of slashing fires were started.

Added to this, the total absence of moisture in the form of spring rains brought about an unprecedented condition and fire hazard.

It has been pointed out from time to time in the annual reports of this Division, and elsewhere, that the organization in strength conditions and facilities in this region is only elementary and cannot be expected to cope with normal conditions with a minimum loss. Much less could it do so during the season under review, which was the driest on record. The members of the field force did very good work in spite of the numerous handicaps under which they were forced to work, putting in long hard hours at exceptionally hazardous work.



Fire-fighting can only be considered at best as an emergency operation, and can possibly never be entirely eliminated. It can, however, be greatly reduced by confining settlement, especially in the north, to those areas suitable for agricultural purposes and especially to the lands that are easily cleared without resorting to the use of broadcast burning.

Furthermore, fire suppression will not meet the desired requirements until pre-organization is permitted. This depends on the employment of a field force of ample strength at the most advantageous periods of the year, and the purchase of the necessary equipment before actual necessity arises.

During the fire season of 1938 a total of 521 fires were dealt with, 333 being in the large or C and D classes, the remainder being under 10 acres in extent.

The total loss is estimated at \$2,046,236.27, and suppression costs, including ranger services actually expended on fires, is \$217,055.49.

While the season in the northern part of the Province was abnormal both as to dryness and as to the length of the hazardous period on record, a normal season was experienced in the central and the southern part of the Province, and it is noteworthy that on the timbered areas on the east slope of the Rocky Mountains, and especially in the forest reserves, the fire occurrence and loss was held to a minimum, largely through the vigilance and energy of the officers and staff concerned. I feel, however, that I would be remiss in my duty if I did not commend the large and increasing number of campers and tourists, who each year make greater use of the forest reserves for camping and recreational purposes, for their co-operation and care of fire while in the forests. It is true that better facilities in the form of camp-grounds, shelters and fire-places have been provided for those spending holidays and seeking recreation in the forests, but the improvements alone are not the entire reason for the splendid co-operation we are receiving. The realization by the general public that they must help by exercising great care with all forms of fire, if their favourite camping districts are to remain attractive, is becoming more noticeable.

Although a great number of the general public are becoming more fire conscious there is room for improvement, as there are some who are not sufficiently cognizant of their responsibilities relative to their preserving a natural heritage that once destroyed will take years to replace. The comparison of fire causes shows that those caused from camp fires are still at the top of the list.



Stand of spruce timber at mouth of the Peace River

## DEPARTMENT OF LANDS AND MINES

## COMPARISON OF FIRE CAUSES BY PERCENTAGE

Causes	1931	1932	1933	1934	1935	1936	1937	1938
Campers .....	23.7	52.8	38.9	35.4	42.3	38.3	35.9	27.4
Smokers .....	3.2	5.3	13.5	11.7	9.3	9.7	4.5	3.6
Settlers .....	21.9	17.1	17.4	17.9	8.2	11.7	20.7	14.6
Railways .....	6.6	4.5	2.8	5.0	10.3	4.0	9.3	4.2
Lightning .....	.6	2.6	5.2	7.5	1.0	14.1	2.2	2.3
Industrial operations .....	1.9	1.1	1.7	4.2	1.0	3.2	.8	1.4
Incendiary .....	15.1	8.2	11.8	11.2	22.7	10.1	13.5	14.6
Public works .....	1.4	.5	1.4	1.3	1.0	.4	.3	.8
Unclassified .....	1.5	1.6	.....	2.5	2.1	2.0	7.2	9.0
Unknown .....	24.1	6.3	7.3	3.3	2.1	6.5	5.6	22.1

## RAILWAY FIRE LOSSES, CALENDAR YEAR 1938

This statement deals only with fires burning on forested areas under the supervision of the Alberta Forest Service, and which started within 300 feet of the centre line of the railway right of way.

*Causes and number of fires:*

Railway causes—Locomotives .....	14	
Employees .....	4	
Sub-total .....	18	
Other causes—Campers and travellers .....	10	18
Settlers .....	5	
Unknown .....	22	
Unclassified .....	1	
Sub-total .....	38	
TOTAL .....		38
TOTAL .....		56

*Number of acres burned:*

Slashing or old burn .....	14,480
Timber land .....	1,419
Young growth .....	7,203
Not forested .....	547
TOTAL .....	23,649

*Loss:*

Timber .....	\$ 4,350.00
Young growth .....	42,507.00
Forest products .....	25.00
Other property .....	79.00
TOTAL .....	\$46,961.00

ANNUAL STATEMENT OF FIRES BY CAUSES, MONTHLY DISTRIBUTION, ETC., WITHIN AND OUTSIDE FOREST RESERVES, ALBERTA—CALENDAR YEAR 1938

Cause	Number					P.C.	Damage	Area, Acres	Monthly Distribution												Fires Inside Provincial Forests		Fires Outside Provincial Forests				
									Monthly Distribution																		
	A	B	C	D	Tot.				January	February	March	April	May	June	July	August	September	October	November	December	Prosecutions	Convictions	No.	Area Acres	No.	Area Acres	
Camp-fires	35	26	34	48	143	27.4	\$ 889,533.66	557,118						5	24	26	11	12	35	17	9	4	2	.....	141	557,118	
Smokers	12	10	5	2	19	3.6	13,636.82	6,673						1	7	5	5	.....	5	1	.....	3	2 1/2	16	6,670 1/2		
Settlers	12	3	24	37	76	14.6	189,795.11	198,306 1/2						7	24	15	3	2	8	17	.....	.....	.....	76	198,306 1/2		
Railways	8	10	2	2	22	4.2	46,036.00	28,960 3/4						2	5	6	1	.....	2	6	.....	.....	.....	22	28,960 3/4		
Lightning	3	3	2	4	12	2.3	40,066.38	14,778 1/2						.....	.....	1	9	1	1	.....	.....	.....	7	13,109	5	1,669 1/2	
Industrial	5	2	.....	.....	7	1.4	1.00	9						2	2	1	.....	.....	1	.....	1	.....	.....	1	6	9	
Operations	4	11	31	30	76	14.6	285,205.00	324,914 3/4						3	22	22	3	1	18	7	.....	.....	.....	76	324,914 3/4		
Incendiary	2	2	.....	.....	4	.8	25.00	5						.....	1	.....	.....	.....	.....	3	.....	.....	.....	4	5	.....	
Public Works	5	4	17	21	47	9.0	144,994.36	181,352						1	4	9	8	4	11	8	.....	2	.....	45	181,352		
Unclassified	16	25	35	39	115	22.1	436,942.94	446,228						3	28	26	5	11	26	12	2	2	.....	112	446,228		
Unknown																											
TOTALS	92	96	150	183	521	100.00	\$2,046,236.27	1,758,345 1/2						24	117	111	40	31	107	71	11	9	.....	18	13,111 1/2	503	1,745,234
Per cent.	17.7	18.6	29.5	34.2	100									4.6	22.5	21.3	7.7	6	20.5	13.6	2.1	1.7	.....	3.5	.....	96.5	



ANNUAL SUMMARY OF FOREST FIRE LOSSES, ALBERTA—CALENDAR YEAR, 1938

FIRE CAUSES	NUMBER OF FIRES					LANDS AFFECTED							LOSS										SUPPRESSION COSTS			Burning Permits Issued					
						Ownership		AREA	CONDITION				TIMBER (MERCHANTABLE AND CUT-OVER)						Loss of Timber	Loss of Young Growth	Loss of Other Property	Total Loss	Ranger Service	Other Expenditures	Total						
	Public, Acres	Private, Acres	Total, Acres	Merchantable Timber, Acres	Cut-over Timber, Acres	Young Growth, Acres	Not Forested, Acres		SALVABLE			UNSALVABLE																			
								A	B	C	D	Total	Saw-timber, M.ft.B.M.	Other, Cords	Depreciation	Saw-timber, M.ft.B.M.	Other, Cords	Loss													
FIRES WITHIN FOREST RESERVES																															
Campers	2				2																										
Smokers	1	2			3	2½					2½																				
Settlers																															
Railways																															
Lightning	3	1		3	7	13,109		13,109	4,753½		4,525½	3,830	13,740				514½	1½	\$ 27,845.13	\$ 27,845.13	8,691.00		\$ 5.32	5.32	40.96	7.84	10.26				
Industrial Operations	1				1																										
Incendiary																															
Unclassified	2				2																										
Unknown	3				3											5		4		15.00	15.00			15.00	6.48	7.14	6.48	17.78			
TOTALS	12	3		3	18	13,111½		13,111½	4,753½		4,528	3,830	13,740		5		518½	1½	\$ 27,860.13	\$ 27,860.13	\$ 8,696.32		\$ 36,556.45	\$ 1,021.29	\$ 8,401.50	\$ 9,422.79					
FIRES OUTSIDE FOREST RESERVES																															
Campers	33	26	34	48	141	556,355¾	762¼	557,118	203,512¼	657¼	100,480	252,468½	30,670	860			417,221	832,630	\$ 707,413.66	\$ 707,413.66	\$181,905.00	\$ 215.00	\$ 889,533.66	\$ 2,334.41	\$ 47,043.45	\$ 49,377.86					
Smokers	1	8	5	2	16	6,530½	140	6,670½	3,928		1,450	1,292½	82	20			150	23,540	11,819.00	11,819.00	1,812.50		\$ 13,631.50	75.78	711.24	787.02					
Settlers	12	3	24	37	76	186,607½	11,699	198,306½	39,810½	12,300	50,280	95,916	416½	2,330			42,135	127,173	115,428.12	115,428.12	73,106.49	1,260.50	189,795.11	1,682.79	25,236.66	26,919.45					
Railways	8	10	2	2	22	28,950¾	10	28,960¾	3,216	14,180	11,394	170¾		5			2,300	49,445	38,286.25	38,286.25	7,685.00	64.75	46,036.00	122.50	7,494.12	7,616.62					
Lightning		2	2	1	5	1,669½		1,669½	18		710	941½						20	24.00	24.00	3,506.25		3,530.25	55.19	2,085.56	2,140.75					
Industrial Operations	4	2			6		3		9	3		6		4				1.00	1.00												
Incendiary	4	11	31	30	76	319,078¾	5,836	324,914¾	81,911¼	9,681	94,024	139,298½	1,852	5,000			26,155½	478,949	203,573.50	203,573.50	81,206.25	425.25	285,205.00	1,313.54	41,223.87	42,537.41					
Public Works	2	2			4		2		3									40	25.00	25.00											
Unclassified	3	4	17	21	45	180,564	788	181,352	24,734½	1,943	11,577	143,097½	1,300				63,020½	122,369½	132,236.61	132,236.61	12,757.75		144,994.36	889.02	24,351.00	25,240.02					
Unknown	13	25	35	39	112	437,705¾	8,522¼	446,228	94,345¾	5,676¾	140,842¾	205,362¾	1,062	14,835			99,862½	340,485	240,839.13	240,839.13	196,083.81	5.00	436,927.94	2,445.24	43,086.69	45,531.93					
																							Miscellaneous		7,097.10	7,097.10					
TOTALS	80	93	150	180	503	1,717,471½	27,762½	1,745,234	451,479¾	44,441	410,759¾	838,554	35,382½	23,054			650,844½	1,974,651½	\$1,449,646.27	\$1,449,646.27	\$558,063.05	\$1,970.50	\$2,009,679.82	\$ 8,957.55	\$198,675.15	\$207,632.70					
FIRES WITHIN AND WITHOUT FOREST RESERVES																															
Campers	35	26	34	48	143	556,355¾	762¼	557,118	203,512¼	657¼	100,480	252,468½	30,670	860			417,221	832,630	\$ 707,413.66	\$ 707,413.66	\$181,905.00	\$ 215.00	\$ 889,533.66	\$ 2,336.83	\$ 47,051.29	\$ 49,388.12					
Smokers	2	10	5	2	19	6,533	140	6,673	3,928		1,452½	1,292½	82	20			150	23,540	11,819.00	11,819.00	1,817.82		\$ 13,636.82	116.74	743.99	860.73					
Settlers	12	3	24	37	76	186,607½	11,699	198,306½	39,810½	12,300	50,280	95,916	416½	2,330			42,135	127,173	115,428.12	115,428.12	73,106.49	1,260.50	189,795.11	1,682.79	25,236.66	26,919.45					
Railways	8	10	2	2	22	28,950¾	10	28,960¾	3,216	14,180	11,394	170¾		5			2,300	49,445	38,286.25	38,286.25	7,685.00	64.75	46,036.00	122.50	7,494.12	7,616.62					
Lightning		3	2	4	12	14,778½		14,778½	4,771½		5,235½	4,771½	13,740				514½	21½	27,869.13	27,869.13	12,197.25		40,066.38	1,015.98	10,439.33	11,455.31					
Industrial Operations	5	2			7		3		9	3		6		4				1.00	1.00												
Incendiary	4	11	31	30	76	319,078¾	5,836	324,914¾	81,911¼	9,681	94,024	139,298½	1,852	5,000			26,155½	478,949	203,573.50	203,573.50	81,206.25	425.25	285,205.00	1,313.54	41,223.87	42,537.41					
Unclassified	5	4	17	21	47	180,564	788	181,352	24,734½	1,943	11,577	143,097½	1,300				63,020½	122,369½	132,236.61	132,236.61	12,757.75		144,994.36	895.50	24,351.00	25,246.50					
Unknown	16	25	35	39	115	437,705¾	8,522¼	446,228	94,345¾	5,676¾	140,842¾	205,362¾	1,062	14,840			99,866½	340,485	240,854.13	240,854.13	196,083.81	5.00	436,942.94	2,455.88	43,093.83	45,549.71					
Public Works	2	2			4		2		3									40	25.00	25.00											
																							Miscellaneous		7,097.10	7,097.10					
TOTALS	92	96	150	183	521	1,730,583	27,762½	1,758,345½	456,232¾	44,441	415,287¾	842,384	49,122½	23,059			651,363	1,974,653	\$1,477,506.40	\$1,477,506.40	\$566,759.37	\$1,970.50	\$2,046,236.27	\$ 9,978.84	\$207,076.65	\$217,055.49					
SUMMARY BY DIVISIONS																															
N.A.F.D.*	79	92	150	179	500	1,717,470	27,762½	1,745,232½	451,479¾	44,441	410,759¾	838,552½	35,382½	23,054			650,844½	1,974,651½	\$1,449,646.27	\$1,449,646.27	\$558,063.05	\$1,970.50	\$2,009,679.82	\$ 8,719.50	\$190,542.43	\$199,261.93					
Clearwater		1			1	4		4	3½		½						14½		14.40	14.40	1.50		15.90		374.41	374.41					
Crowsnest-Bow River	5	1		1	7			1			1							1½	.73	.73			3.23	265.14	1,029.07	1,294.21					
Brazeau-Athabaska	8	2		3	13	13,108		13,108	4,750		4,526½	3,831½	13,740	5			4		27,845.00	27,845.00	8,692.32		36,537.32	994.20	8,033.64	9,027.84					
Cypress Hills																															
TOTALS	92	96	150	183	521	1,730,583	27,762½	1,758,345½	456,232¾	44,441	415,287¾	842,384	49,122½	23,059			651,363	1,974,653	\$1,477,506.40	\$1,477,506.40	\$566,759.37	\$1,970.50	\$2,046,236.27	\$ 9,978.84	\$207,076.65	\$217,055.49					

\*N.A.F.D.—Northern Alberta Forest District.



SUMMARY SHOWING TOTAL NUMBER OF FIRES AND BURNT OVER AREA  
FROM 1931 TO 1938 INCLUSIVE

Year	Total No. of Fires	Total Acreage	Not Forested	Net Acreage
1931 .....	622	604,876.12	209,064.75	395,811.37
1932 .....	379	136,117.89	68,253.42	67,864.47
1933 .....	288	93,765	30,955.88	62,809.12
1934 .....	240	58,870	21,656.5	37,213.5
1935 .....	97	6,319.75	3,267.75	3,052
1936 .....	248	204,454	46,534	157,920
1937 .....	375	835,259	155,069.5	680,189.5
1938 .....	521	1,758,345.5	842,384	915,961.5
TOTALS .....	2,770	3,698,007.26	1,377,185.80	2,320,821.46

*Personnel.*—Forest protection, to be of value, must concentrate on fire prevention and early control of such fires that occur, and in order to be effective sufficient staff of a high calibre must be employed, if not during the entire year for at least a great portion thereof, so that sufficient interest can be maintained to secure and retain men with the required qualifications.

The employment of adequate or nearly an adequate staff for forest protection has been amply demonstrated in effectiveness in other countries and in other provinces of the Dominion by the reduced losses in timber and suppression costs.

Since 1932 the field staff has been almost entirely seasonal, and appointments were not possible in some districts until well after the spring danger period had arrived. This procedure places the ranger at a great disadvantage by reason of the fact that he has not had an opportunity to check over his district for winter camp fires smoldering in the ground that are caused by fires left by hunters and campers during the previous winter. It is admitted that he might not find all such fires. However, early patrols have demonstrated their effectiveness in controlling this class of fire before the winds fan the smoldering fire into a conflagration.

Under the present financial conditions it does not seem possible to obtain sufficient appropriation so as to employ an adequate staff for the northern districts, but I again wish to stress the necessity of having all seasonal personnel appointed and ready to assume their duties sufficiently early in the spring to check their districts before the spring danger period arises.

*Fire-fighting Equipment.*—The equipment situation remains practically the same as accounted for in former reports, with the exception of the purchase of emergency equipment during the season under review.

While this form of purchase assists in adding to our meagre supply, it is not at all desirable; in fact it would be much better for all concerned if we were allowed to purchase a sufficient supply of standardized material on a competitive basis well before the fire season arrives. It would then be possible to distribute this equipment to the different districts to be on hand when needed.

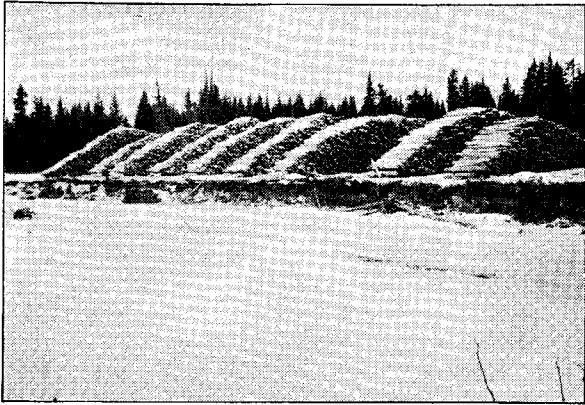
#### FOREST ADMINISTRATION

*Provincial Forest Reserves.*—This section of the report deals with timber disposed of from the forest reserves. Compared with other years the year under review can be taken as an average. The amount of saw-logs taken out for lumber is in excess of the average for other years, but mine props are below previous years.

The general economic condition is the major influence affecting the timber industry, and as the market for coal has been somewhat slack during the year under review, the demand for mining timber has fallen off somewhat. We do not expect any noticeable increase in the demand for different classes of timber until such time as the farmers have a good crop and are able to obtain a fair price for their products.

TIMBER CUT UNDER PERMIT, ALBERTA FOREST RESERVES—FISCAL YEAR 1938-39

	Cooking Lake	Cypress Hills	Crowsnest- Bow River	Clearwater	Brazeau- Athabaska	Totals
Number of permits .....	57	198	259	27	30	571
Fuelwood, dry (cords) .....	135	576	3,362	68	252	4,393
Fuelwood, green (cords) .....	.....	.....	46	.....	3	49
Mine timber, dry (lineal feet) .....	.....	.....	322,692	82,000	101,720	506,412
Mine timber, green (lineal feet) .....	.....	.....	.....	38,833	.....	38,833
Lagging (cords) .....	.....	.....	.....	.....	.....	.....
Lagging (lineal feet) .....	.....	.....	23,700	37,000	.....	60,700
Fence posts .....	14,046	8,355	5,137	20	105	27,663
Sawlogs (F.B.M.) .....	.....	1,000	471,946	.....	.....	472,946
Round timber (pieces) .....	1,400	6,152	11,797	221	50,106	69,676
Round timber (lineal feet) .....	11,340	510	13,213	12,398	.....	37,461
Fence droppers (pieces) .....	.....	.....	3,100	.....	.....	3,100
Fence droppers (cords) .....	.....	.....	.....	.....	.....	.....
Telephone poles (pieces) .....	.....	.....	.....	.....	.....	.....
Telephone poles (lineal feet) .....	.....	.....	.....	.....	.....	.....
Railway ties, green (pieces) .....	.....	.....	.....	.....	.....	.....



A portion of a winter cut of sawlogs



Part of Chisholm Sawmills cut on the Freeman River—1937-38



*Provincial Lands.*—The falling off in the demand for Alberta spruce lumber noted at the end of the preceding year, was directly reflected in a reduction in the manufacture of sawn lumber during the year ending March 31st, 1939. The total production of lumber for the year was over seventeen per cent less than for 1937-38. Lumber prices are still at depressed levels and there is little present indication of an increased demand either for export or for local needs. A large scale programme of construction is badly needed and would put new life into the lumber industry, but there appears little prospect of investment in such a programme at present, particularly in the present unsettled state of world affairs.

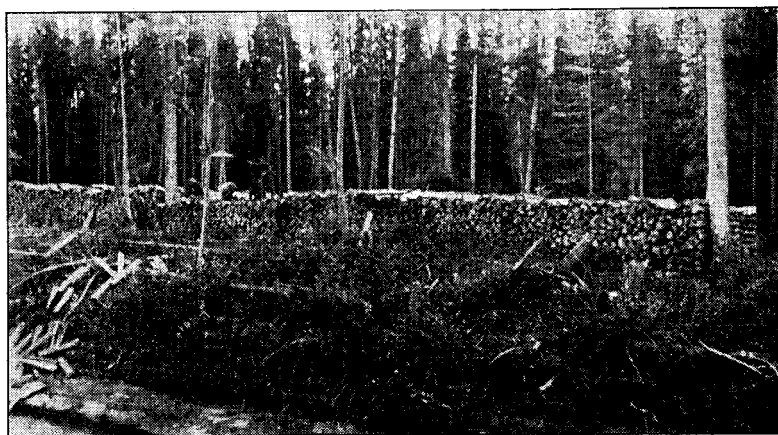
The manufacture of railway ties, however, showed a recovery from the previous year's recession with an increase over that year's figures of over 17½%. Contract prices on railway ties were unchanged.

In addition to the reduction of dues on lumber and on No. 2 ties, previously granted by order in council and extended to June 30th, 1939, the schedule of dues payable on railway ties was amended in March, 1939. The effect of the new schedule was a 1c per tie reduction of dues on all grades of ties cut on permit berths and under permits, and of ½c per tie reduction on ties cut from licence berths, whilst still maintaining the differential of 2c between No. 1 and No. 2 ties in the former class of operation and 1c spread in the latter class. The new schedule of dues on railway ties was made effective as at October 1st, 1938, so as to cover the whole of the 1938-39 season's operations.

At the same time, a relaxation of the regulations governing the issue of special timber permits was granted in respect of such operations in tie timber. In these cases the deposit is reduced from \$25.00 to \$10.00 and no further payment on account of dues is now required until the operations are completed or the ties sold.

The arrangement between this Department and the Bureau of Relief and Public Welfare under which permits are issued on behalf of needy settlers was continued. Operations were conducted on quite an extensive scale under such permits, particularly in the production of railway ties, and bridge and culvert material.

New regulations to authorize the disposal of tracts of timber in excess of two square miles in area, and also to make certain changes in the provisions governing the disposal of all timber berths, are still being given consideration, and it is hoped that they will be put in force during the coming year.



Cordwood pile 95 miles from McMurray

STATEMENT OF TIMBER OPERATIONS FOR 1938-39 ON PROVINCIAL LANDS  
IN THE EDMONTON DISTRICT AND IN THE CALGARY, PEACE RIVER AND LETHBRIDGE LAND AGENCIES

	Head Office, Edmonton District	Calgary Agency	Peace River Agency	Lethbridge Agency	Totals
(a) OPERATIONS ON LICENCE TIMBER BERTHS:					
Number of active operations	33	11			44
Lumber, feet, board measure	29,427,981	5,855,458			35,283,439
Railway ties	48,978	7,570			56,548
Round timber (including mine timber), lineal feet	8,956	1,737,158			1,746,114
Lath	1,452,000				1,452,000
Cordwood, cords		94			94
(b) OPERATIONS ON TIMBER PERMIT BERTHS:					
Number of active operations	189	27			216
Lumber, feet, board measure	51,203,028	4,064,583			55,267,611
Railway ties	853,413	34,664			888,077
Round timber (including mine timber), lineal feet	43,383	51,245			94,628
Lath	2,232,450				2,232,450
Shingles	65,400				65,400
Cordwood, cords	153	51			204
(c) OPERATIONS UNDER SPECIAL TIMBER PERMITS: (Sec. 40 (h) of the Timber Regulations)					
Number of active operations	173	45			218
Lumber, feet, board measure	3,757,028	839,961			4,596,989
Railway ties	138,339	31,925			170,264
Round timber (including mine timber), lineal feet	76,499	28,755			105,254
Shingles	226,250	53,000			261,250
Cordwood, cords	15	6½			21½
(d) TIMBER PERMITS ISSUED AUTHORIZING THE CUTTING OF MATERIAL SHOWN HEREUNDER:					
Number of permits issued	1,294	239		18	2,121
Lumber, in feet board measure	9,959,246	531,910	570		14,540,351
Railway ties	34,897	300	2,460		37,657
Piling, lineal feet	252,876	8,525	51,820		313,221
Mining timber, lineal feet	204,860	171,672			376,532
Telegraph and telephone poles	16,678	2,740	300		19,718
Building logs and culvert timber, lineal feet	59,037	7,100	280,844		346,981
Fence rails	583,410	4,015	586,840	100	1,174,365
Pence posts	155,310	37,860	143,650	300	337,120
Roof poles	118,733	550	117,855		237,138
Shingles	207,500		22,000		229,500
Shingle bolts, lath bolts, boxwood, in cords	62½	54			380½
Fuel wood, cords	6,491	1,740	1,106	136	9,473
Lath	15,000				15,000
Guard rails	5,700				5,700



## GRAZING

The successive years of drought in the southern part of the Province prior to the year under review rendered it imperative to reduce the normal carrying capacity of the different divisions within the forest reserves so as to prevent over-grazing and the consequences resulting therefrom. This policy has been amply justified by the results obtained in the recovery of the forage plants on the range land during the summer season of 1938, when a nearly normal rainfall was experienced.

Forage conditions, which were uncertain immediately prior to the opening of the season, eventually became exceptionally good as the result of a well distributed rainfall, and at the end of the grazing season they were again back to normal.

## GRAZING STATEMENT—ALBERTA FOREST SERVICE, 1938-39

Forest	No. of Permits	No. of Horses	No. of Cattle	No. of Sheep
Cypress Hills .....	50	560	2,029	.....
Crownsnest-Bow River .....	270	1,543	19,925	4,791
Clearwater .....	51	223	252	.....
Brazeau-Athabaska .....	66	698	74	.....
TOTALS .....	437	3,024	22,280	4,791

## COMPARATIVE STATEMENT, GRAZING—ALBERTA FOREST SERVICE

Grazing year	1931	1932	1933	1934	1935	1936	1937	1938	Totals	Average
No. of permits .....	456	606	493	517	533	497	529	437	4,068	509
No. of cattle .....	15,041	20,086	20,230	22,557	25,097	23,407	18,921	22,280	167,619	20,953
No. of horses .....	3,417	3,377	3,185	2,541	2,207	2,441	3,418	3,024	23,610	2,952
No. of sheep .....	4,379	7,465	6,705	3,078	4,114	5,443	3,174	4,791	39,149	4,893

The grazing regulations allow adaptation to changing conditions such as the allotting of grazing capacities, period of use, manner of utilization, class of stock and other related matters, which are all within the scope of range management within the forest reserves, and an endeavor is being made to carry out the policies set out so as not to over-graze and destroy the forage plants, but to utilize them and at the same time ensure their continuance.

## IMPROVEMENTS

The period under review was quite favourable for the carrying out of improvement work, especially in the forest reserves where fires did not greatly interfere with the regular routine work of the ranger staff.

Throughout the season all existing improvements were maintained, although not up to the desired conditions. Trails and roads were kept open and lines of communication were maintained in working order.

The favourable fire season was a great help as the forest reserve staffs were not engaged in fire-fighting to a great extent and were therefore able to devote a great deal of time to maintenance work. They were also greatly assisted in this work by trainees of the Youth Forestry Training Project and as a result most of our existing improvements are in better shape than they have been for years.

IMPROVEMENT STATEMENT

NEW CONSTRUCTION PROJECTS:

Forest	Houses	Garages, Sheds, etc.	Fences	Fields (breaking in acres)	Water Supply Systems	Barns and Stables	Telephones (miles)	Corrals	Bridges	Look-out Towers	Trails (Miles)	Cabins	Fireguard Roads (Miles)	Tourist Stoves	Miscel- laneous
Cypress Hills	...	1	...	...	2	...	...	1	...	...	...	...	10	2	2
Crownest	...	1	...	...	...	2	30	...	...	...	15	2	...	...	...
Bow River	...	1	1	...	...	...	...	1	...	...	39	2	...	...	1
Clearwater	1	1	...	...	...	...	24	1	...	...	...	1	...	...	...
Brazeau	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Athabaska	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS	2	3	1	...	2	2	54	3	...	...	54	5	10½	2	4

MAINTENANCE PROJECTS:

Forest	Houses	Cabins	Barns and Stables	Telephones (Miles)	Trails (Miles)	Roads (Miles)	Fences	Corrals	Water Supply Systems	Garages, Sheds, etc.	Look-out Towers and Cabins	Grounds	Hay Meadows & Pastures	Ferries	Miscel- laneous
Cypress Hills	1	1	1	13	26	26	2	...	1	2	...	1	...	...	...
Crownest	7	4	4	161½	290	146¾	15	7	2	5	...	9	3	...	6
Bow River	8	11	11	290	799¾	86½	19	19	3	10	...	17	5	...	5
Clearwater	3	13	...	180½	793¾	19½	5	1	1	...	...	4	1	1	1
Brazeau	8	7	2	146½	282½	51	9	1	1	2	1	2	...	...	...
Athabaska	3	11	1	62	422½	...	8	1	2	2	...	2	...	...	1
TOTALS	30	47	19	853½	2,588½	329¾	58	10	10	21	1	33	10	1	13

IMPROVEMENTS—STATEMENT OF MAN-DAYS WORKED

NEW CONSTRUCTION PROJECTS:

Forest															
	Houses	Garages, Sheds, etc.	Fences	Fields (breaking)	Water Supplies	Telephones	Corrals	Barns and Stables	Bridges	Look-out Towers	Trails	Cabins	Fireguard Roads	Tourist Stoves	Miscel- laneous
Cypress Hills	...	64½	...	...	31	...	10	112½	...	...	...	...	7	14	28½
Crownest	...	9½	...	...	...	66	...	...	...	...	2	44½	30	...	...
Bow River	10	...	...	...	...	...	5	...	...	...	67	96	...	...	2
Clearwater	...	...	...	...	...	112½	6	...	...	...	...	12	...	...	61½
Brazeau	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Athabaska	29	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS	39	74	...	...	31	178½	21	112½	...	...	69	152½	37	14	92

MAINTENANCE PROJECTS:

Forest															
	Houses	Cabins	Barns and Stables	Telephones	Trails	Roads	Fences	Corrals	Water Supplies	Garages, Sheds, Etc.	Look-out Towers and Cabins	Grounds	Hay Meadows & Pastures	Ferries	Miscel- laneous
Cypress Hills	16½	13½	3	34	126½	23½	2	...	3	7½	...	12½	...	...	...
Crownest	28½	17½	14	187½	287	123	123	...	1½	5½	...	41½	27	...	53
Bow River	106½	47	18½	364½	570½	213	201½	22	7	27½	...	74½	9½	...	16
Clearwater	3	68	...	192	324	7	54	2	2	...	...	12	22	...	5
Brazeau	33½	30	22½	137	327½	60½	60½	2	4	3	19	39	2	...	...
Athabaska	1½	62	4	74	294	31	19½	1	1½	12	...	3½	...	...	2
TOTALS	189½	238	62	989	1,642½	561½	460½	27	19	55½	19	171	50½	22	76

## PUBLICITY

It has been repeatedly emphasized in previous reports that forest protection is largely a matter of public responsibility. It is, however, regrettable that a great number of our citizens do not recognize or evade this responsibility, or they do not realize the benefit of forest cover. The most effective way of bringing them to realize the responsibility is by means of publicity.

In years past we have found that the most effective way of educating the public to their responsibility is first through the schools by means of illustrated pamphlets and booklets, and the donation of small prizes for essays on trees and forestry, and by articles in the press and addresses given over the air.

A publicity campaign throughout the fire season has produced satisfactory results in years past, but in order to be effective, must be sustained through each successive season in order to produce enduring results, but owing to shortage of staff this has not been possible, and our publicity has been limited to a few brief messages over the air, and articles in the local papers.

## NURSERY AND TREE DISTRIBUTION

*Nursery.*—The growing of trees from seed has been carried out at Oliver as in previous years, and the young transplants have been forwarded to the subsidiary nurseries at Fort Saskatchewan and Lethbridge, where they have been planted out so as to establish a good root system for transplanting in their permanent sites.

Owing to lack of an artificial watering system at Oliver the same high degree of success was not obtained as during the first several years the nursery was in operation.

Although very good success is obtained during years of normal rain, the source of moisture is not dependable and during prolonged dry spells such as have occurred during the past two years, the loss of young transplants has been very heavy. This condition exists both at Oliver and at Fort Saskatchewan, but not at Lethbridge where water for irrigation is available.

The experience we have had during the past two dry seasons has shown the necessity of an overhead sprinkling system at Oliver where the majority of our nursery stock is produced.

## YOUTH FORESTRY TRAINING PROJECT

As a continuation of the Youth Forestry Training Project entered into jointly by the Dominion and the Province, designed to provide unemployed and needy young men with training and experience in elementary forestry, a great number of applicants were interviewed and sixty were selected.

The camp on the Highwood river eighty-five miles south-west of Calgary was utilized as a base camp for thirty-five of these youths, and twenty-five were distributed as follows:

Crowsnest Forest .....	12
Clearwater Forest .....	4
Brazeau-Athabaska Forest .....	9

Experience was provided those in the camps in both new construction and maintenance projects useful to the forest service in the vicinity of the camp and on trails and telephone lines in the districts adjacent.

The trainees sent out to the different reserves were placed under the direction of rangers as assistants where they performed a great deal of useful work in maintaining existing improvements.

A thorough grounding in practical work was given in order to fit the young men, both in the camp and in the different districts, for possible employment with the Forest Service as assistant rangers, patrolmen and lookoutmen and in the lumbering industry generally.

MILEAGE TRAVELLED BY EMPLOYEES OF THE ALBERTA FOREST SERVICE  
FISCAL YEAR 1938-39

Divisions	Foot	Saddle	Driving	Speeder	Auto	Canoe	Rowboat	Motorboat	Plane	Railway	Other	Total
Northern Alberta Forest District	25,788½	41,808½	9,770½	26,118½	159,278½	1,198	202	4,879½	1,615	12,380	1,294	284,532½
Grosvont-Bow River Forest	3,538	31,210	3,938		51,160			12		72		89,930
Clearwater Forest	3,158	10,789	3,346	1,128	12,332			10				30,763
Brazeau-Athabaska Forest	3,830	18,201	320	4,184	4,098					1,948		32,581
Cypress Hills Forest	20	1,890			820							2,730
TOTALS	36,334½	103,898½	17,374½	31,430	227,688½	1,198	202	4,901½	1,615	14,600	1,294	440,536½

Number of inspections made during 1938—730.



## Technical Division

### REPORT OF THE SUPERINTENDENT OF THE TECHNICAL DIVISION, T. W. DALKIN

*Notifications (Land Patents).*—Over half a million acres of land were patented during the fiscal year ending March 31, 1939, the exact acreage figures being 517,435.896, which were covered by 2,874 notifications. These figures represent the greatest area that has been patented by the Crown in a single year since the transfer of the natural resources to the Province. The total number of notifications includes 42 which were issued affecting areas in subdivision plans.

The details are as follows:

Classification	Notifications	Area (Acres)
Homesteads .....	1,741	362,757.321
Second homesteads .....	533	80,795.813
Soldier grants .....	52	7,875.01
School lands' sales .....	378	55,215.502
Sales (including lots in subdivisions) .....	94	2,665.72
Special grants .....	49	599.32
School lands' grants .....	12	43.34
Pre-emptions .....	2	317.00
North-west half-breed grants .....	1	240.10
Exchange of lands .....	4	6,820.05
Release of habendum clauses .....	3	89.03
Release of licence of occupation .....	1	1.88
Lacombe & Northwestern Railway, free grant .....	1	1.88
Canadian National Railways' sales .....	3	15.81
<b>TOTALS .....</b>	<b>2,874</b>	<b>517,435.896</b>

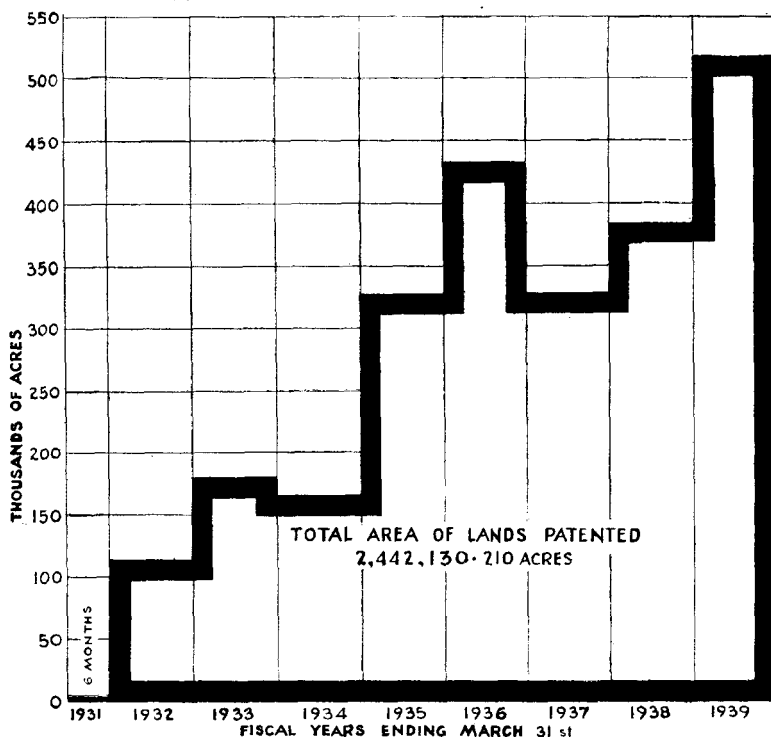
Details of Sales in Subdivisions	Notifications	No. of Lots	No. of Blocks
Walsh, (Plan 3644 B) .....	2	3	.....
Coleman, (Plan 6808 CU) .....	2	2	.....
Town of Barnwell, (Plan 3105Y) .....	2	5	.....
Canmore .....	11	12	.....
High River, (Plan 5830 W) .....	1	.....	1
Bellevue, (Plan 7134 AI) .....	1	2	.....
Peace River Landing Settlement 5617 BK .....	1	5	.....
Avion, (Plan 1255 AI) .....	1	8	.....
McMurray Settlement, (Plan 616 AO) .....	1	1	.....
Passburg Townsite, (Plan 185 AA) .....	1	3	.....
Jarvie .....	6	8	.....
Lac La Biche, (Plan 4313 BF) .....	1	1	.....
Smith Landing Settlement .....	1	1	.....
Atikamisis Lake Settlement .....	1	1	.....
Carbondale, (Plan 232 AI) .....	1	1	.....
Orion, (Plan 7415 BO) .....	1	1	.....
Maple Leaf, (Plan 2107 AA) .....	1	1	.....
School lands' sales:			
McLennan Townsite, (Plan 1394 EU) .....	7	13	.....
<b>TOTALS .....</b>	<b>42</b>	<b>68</b>	<b>1</b>

*Homestead Entries.*—During the year, 1,277 homestead entries, 73 second homestead entries and 3 soldier grant entries were checked as to acreage and exceptions were made whenever necessary for railway rights of way, roadways, power transmission lines, pipe-lines and other previously alienated parcels of land. Where homesteads were affected by rivers the fordableness of same was checked before entries were granted to the land on both sides of the water.

#### *Lands Transferred from the Dominion to the Province:*

(1) *Wawaskesy National Park.*—In accordance with chapter 35 of the statutes of 1938 as assented to on the 24th of June, 1938, this national park was abolished and transferred to the jurisdiction of this Department. The park comprises those portions of townships 17 and 18 in range 3, and township 17, range 4, lying north and west of the Saskatchewan River, and township 18,

**CHART SHOWING ACRES PATENTED  
FROM OCTOBER 1st 1930 TO MARCH 31st 1939**



range 4, all west of the 4th meridian. This area was established as a national park on the 31st of May, 1933, P.C. No. 1134, with the intention of its becoming developed as a second reserve to insure the preservation of the prong-horned antelope. It was never considered necessary to fence or develop this area as the Nemiscam Antelope Park, also in Southern Alberta, was considered adequate. At the Legislative Assembly of the Province of Alberta in 1935, a resolution was passed by the provincial authorities which requested that the area either be fenced and developed as a park or returned to the Province. As the area was never developed as an antelope park it was accordingly transferred to the Province under Section 14 of the Agreement respecting the transfer of the resources.

(2) *Elk Island Park and Cooking Lake Forest Reserve.*—Under the same chapter certain portions of sections 7, 8, 9, 10, 14, 15, 16 and 18 of township 53, range 20, west of the 4th meridian, lying to the north of the northerly boundary of the main provincial highway and formerly within the boundaries of Cooking Lake Forest Reserve, were added to Elk Island Park. These areas were transferred to the Dominion Government by the Province by Order in council, No. 933/36 dated the 30th of June, 1936. In return for these areas amounting to 148.77 acres, more or less, chapter 35 provides for the transfer to the Province of portions of sections 10, 14 and 15 of township 53, range 20, west of the 4th meridian, lying to the south of the northerly boundary of the main highway within the Elk Island National Park. The transfer of these areas became necessary in order to establish the north boundary of the main highway as the south boundary of Elk Island Park and the south boundary of the main highway as the north boundary of Cooking Lake Forest Reserve.

(3) *Admiralty and Ordnance Lands*.—Portion of section 23, township 8, range 3, west of the 4th meridian, south of Elk Water Lake containing 395.27 acres, more or less, together with the mines and minerals, located in the Cypress Hills Forest Reserve, was transferred from the Dominion to the Province by Order in council, P.C. No. 1764 dated the 26th day of July, 1938.

(4) *Soldier Settlement Board Lands*.—A large number of parcels of lands which were retained by Canada and administered under the Soldier Settlement Act were transferred to the Province by the following orders in council:

P.C. No. 873 dated the 25th of April, 1938.

P.C. No. 1523 dated the 6th of July, 1938.

P.C. No. 1702 dated the 20th of July, 1938.

*Provincial Parks*.—Applications were received from the Provincial Parks Board to establish certain areas as provincial parks. These applications were given favourable consideration with the result that the following orders in council were passed on the 23rd of August, 1938, and the parks were established:

Order in council No. 1020/38 established a provincial park on those portions of legal subdivisions 15 and 16 of section 35 lying to the north and east of Little Smoky River in township 75, range 22, west of the 5th meridian, and also those portions of legal subdivisions 1 and 2 of section 2 lying to the south and east of the right bank of the Little Smoky River in township 76, range 22, west of the 5th meridian. This park will accommodate visitors from Falher and the surrounding district.

The same order in council established another park on portions of the north-east quarter of legal subdivision 1 of section 1, township 74, range 20, west of the 5th meridian. This park is located south-west of Aggie.

*Addition to Janvier Indian Reserve, No. 194*.—Reference is made in last year's report to an application from the Department of Indian Affairs for an addition to Janvier Indian Reserve. At the time of the transfer of the natural resources the complete area to which the Indians were entitled under treaty was not laid out for them. A survey was made by the Department of Indian Affairs of an area containing 514 acres in township 80, range 5, west of the 4th meridian. This land completes the acreage to which the Indians are entitled, and on the 5th of January, 1939, Order in council No. 7/39 was passed adding these lands to the Janvier Indian Reserve to be administered by the Dominion of Canada.

*Cypress Hills Forest Reserve*.—Certain areas lying within the boundaries of the Cypress Hills Forest Reserve are patented lands and it was deemed expedient, with a view to proper administration, that these areas should be withdrawn from the reserve. Orders in council were therefore passed—No. 1549/38 on 13th of December, 1938 and No. 247/39 on 1st March, 1939—withdrawing patented areas amounting to 1,880 acres more or less in townships 7 and 8, range 1, west of the 4th meridian, and in township 8, ranges 2 and 3, west of the 4th meridian.

*River Lot 12, Peace River Landing Settlement*.—Portion of River Lot 12, Peace River Landing Settlement, together with various Dominion Government buildings erected thereon, was transferred to the jurisdiction of this Department under the Natural Resources Agreement. Representations were made by the Department of Public Works to have the buildings and the land upon which they are erected transferred to their jurisdiction, with the result that an order in council was passed on the 29th of June, 1938, authorizing the transfer of the buildings and the area of 3.84 acres, more or less, reserving mines and minerals, to the Department of Public Works.

*Licences of Occupation, Irrigation Schemes*.—Representations were made to this Department by the Director of Water Resources regarding the construction of dam sites, rights of way and works, and the flooding of certain areas under

the Dominion Prairie Farm Rehabilitation Act. It was pointed out that the settlers benefiting from such schemes were having a struggle to make a living and it was deemed expedient to pass an order in council on the 23rd of August, 1938, No. 1017/38, waiving all departmental fees in connection with such schemes, with the result that several licences of occupation were issued free of charge to individuals covering small areas on provincial lands.

Licences of occupation were issued for logging roads in township 50, ranges 10 and 11, west of the 5th meridian, and in townships 51, 52 and 53, range 10, west of the 5th meridian, in favour of the Swanson Lumber Company, and in township 47, ranges 4 and 5, west of the 5th meridian, to the D. R. Fraser Company, Limited.

*Wharf-site Sylvan Lake.*—Considerable correspondence with the Dominion Government, Department of Public Works, led to the passing of Order in council No. 1208/38 dated the 27th of September, 1938, whereby an area of 2.27 acres, more or less, was set apart to be used for the sole purpose of constructing, erecting and maintaining a wharf-site. A pier has now been erected by the Dominion Government at this popular resort and the area reserved during pleasure.

*Ma-me-o Beach, Pigeon Lake.*—The Dominion Government has erected a pier at this location and an area of 1.29 acres, more or less, has been reserved unto the Dominion Government by authority of Order in council, No. 1551/38.

An application was received from the Department of Transport, Ottawa, for a power line right of way over the north-east quarter of section 29, township 12, range 6, west of the 4th meridian, to the Dominion Radio Range Transmitter site located on section 20, township 12, range 6, west of the 4th meridian, serving Trans-Canada Airways at Medicine Hat. Order in council, No. 1207/38, dated the 27th of September, 1938 was passed and a licence of occupation issued in favour of the Dominion Government on the 28th of September, 1938, for such time as the land may be required for power line right of way purposes.

Other applications were received on behalf of the Calgary Power Company and licences of occupation issued.

*Shipyard-site near McMurray.*—A lease was issued in favour of the Governor and Company of Adventurers of England trading into Hudson's Bay for a shipyard-site containing 15.32 acres, more or less, in the north-east quarter of section 31, township 90, range 9, west of the 4th meridian.

*Special Areas.*—The transfer of the jurisdiction of the Special Areas to this Department has occupied practically the whole time of two members from this staff. Many types of plans have been prepared for the Board of all the areas showing the public lands and lands offered for sale in order that a bird's-eye view of the situation could be obtained. Registers are now being compiled showing the disposition of the lands and during the fiscal year about 3,000 titles were received covering about 7,000 parcels of land. There appears to be a tremendous amount of work to be done in connection with the records of the Special Areas, before full and complete information can be obtained covering all the lands in this section of the Province.

*Exchange of Lands.*—Several applications have been received from settlers for the exchange of their lands for Crown lands. In some cases it was apparent that the proposed exchange would effect a consolidation of the applicant's holdings and assist him to operate his lands on a more economic basis. In other cases an exchange has been requested in order to obtain water and better soil conditions or to be nearer to a market road or school.

In order to stabilize the leases already granted to the Credit Foncier Franco-Canadien Company, this company transferred lands in the Special Areas amount-

ing to 6,493.95 acres, more or less, to this Department. In exchange for these lands the Crown issued a notification in favour of the company to the survey rights of certain provincial lands in township 23, range 8, west of the 4th meridian, containing 6,406 acres, more or less.

*Snow Fences.*—Several parcels of land have been sold to the Canadian National Railways for the purpose of erecting snow fences along the railway right of way and notifications have issued accordingly.

*Metis Colonies.*—Representations were made to this Department by the Department of Health whereby it was considered advisable that certain areas of unoccupied provincial lands should be set aside for the Metis population as provided for under section 6 of the Metis Population Betterment Act, chapter 6 of the statutes of the second session of the Legislative Assembly of 1938. During the fiscal year the following orders in council were passed dedicating certain areas deemed suitable for the settlement of members of any Metis association:

Colony, No. 6: Order in council, No. 1603/38, dated 21st of December, 1938, was passed setting aside the following area: All of townships 55 and 56, range 20, west of the 5th meridian; all of township 55, range 21, west of the 5th meridian; all that portion of township 55, range 22, west of the 5th meridian, east of the Athabaska River; all that portion of township 56, ranges 21 and 22, west of the 5th meridian, east of the Athabaska River; all that portion of township 57, range 21, west of the 5th meridian, east of the Athabaska River; all that portion of township 58, range 21, west of the 5th meridian, east of the Athabaska River. The south boundary of this colony is located about twelve miles north of Marlboro and adjoins the right bank of the Athabaska River.

Colony, No. 3: Order in council, No. 1602/38, dated the 21st of December, 1938, was passed setting aside the following area: All that portion of township 79, range 10, west of the 5th meridian, not covered by the waters of Utikuma Lake; all that portion of township 79, range 11, west of the 5th meridian not covered by the waters of Utikuma Lake and Utikumisis Lake and not included in the Indian Reserve; all that portion of township 80, range 11, west of the 5th meridian, lying to the south and west of and not covered by the waters of Utikumisis Lake, being approximately sections 4, 5, 6 and 7 of the said township; and all of townships 78, 79 and 80, range 12, west of the 5th meridian. This area comprises almost five townships of surveyed and unsurveyed lands to the west of and adjoining the shores of Utikuma Lake. At a later date, on the 14th of March, 1939, another Order in council, No. 302/39 was passed providing for the addition to the above area of small portions in township 80, range 11, west of the 5th meridian.

Colony, No. 9: Order in council, No. 1605/38, dated the 21st of December, 1938 was passed setting aside the following areas: The east half of township 66, range 1, west of the 4th meridian; all that portion of section 14, township 65, range 1, west of the 4th meridian, not covered by the waters of Cold Lake and not including the island at the mouth of Matenau River. This colony lies north of Cold Lake.

Colony, No. 8A: Order in council, No. 1604/38, dated the 21st of December, 1938 was passed setting aside the following area: All of township 66 and the north half of township 65, range 7, west of the 4th meridian; all of township 66 and the north half of township 65, range 8, west of the 4th meridian. This area is located about thirty miles east of Lac La Biche.

Colony, No. 7: Order in council, No. 379/39, dated the 29th of March, 1939 was passed setting aside the following area: All of township 62, range 14, west of the 4th meridian, excepting thereout sections 35 and 36 of the said township; all of township 62, range 15, west of the 4th meridian; all of township 63,

range 14, west of the 4th meridian, excepting thereout all of sections 1, 12, 13, 24, 25 and 36 of the said township; all of township 63, range 15, west of the 4th meridian. This area comprises about four townships and is located about 20 miles south of Lac La Biche.

*New Surveys.*—Saskatchewan-Alberta boundary: This survey was started in March of last year and a copy of the completed plan of survey dated the 6th of January, 1939, approved by the Saskatchewan-Alberta Boundary Commission is now recorded in this Division.

The Alberta-Saskatchewan Boundary Act, covered by Bill, No. 16 of 1939, passed by the Alberta Legislative Assembly, approved and confirmed the plan of this boundary survey and the report of the Commission. The boundary line is marked upon the ground by this survey, and is approved and confirmed and declared to be the true inter-provincial boundary. This Act was passed subject to the passing of a similar Act by the Province of Saskatchewan.

Township 70, range 6, west of the 6th meridian: Corrections were made in the survey of this township in the spring of 1938 involving replacing of certain corner monuments.

Section 18, township 7, range 28, west of the 4th meridian: A re-traverse of the Old Man River at this location was made, necessitated by the change of the course of the river.

South-east quarter of section 35, township 24, range 2, west of the 5th meridian: A re-traverse of the Bow River at this location was made as it was apparent that the old original Dominion Government survey was in error.

Approved plans showing the re-survey of the Red Willow River in the south half of section 16 and south half of section 21, township 70, range 10, west of the 6th meridian were received.

Approved plans were also received showing the re-survey of parts of sections 5 and 8, of township 80, range 3, west of the 6th meridian. This re-survey was necessary due to the fact that the old Dominion Government survey was found to be in error.

Arrangements were made with Ottawa for the preparation of new plans of survey of townships 69 and 70, range 27, west of the 5th meridian, township 70, range 6, west of the 6th meridian and townships 76 and 77, ranges 18 and 19, west of the 5th meridian. This latter survey was necessary on account of the recession of the waters of Winagami Lake.

*New Maps.*—Map of Alberta, scale  $17\frac{1}{2}$  miles to the inch, was prepared showing the available school lands lithographed in black. This map was published in connection with the scheme of granting cultivation and grazing privileges to settlers in the Special Areas on the available school lands outside of these areas.

Turner Valley: A lithographed map was prepared of this area and published in October, 1938 showing the location of the producing oil and gas naphtha wells. The uncompleted and abandoned wells were also shown.

Special Areas: A lithographed map was published showing the cultivation and grazing lands. A large number of individual maps of each of the Special Areas was also published.

Natural Resources Map: On account of the growing demand for a map showing the natural resources of Alberta it was deemed expedient that there should be no further delay in designing and drafting this map. Splendid progress has been made in this regard and it is anticipated that this new map will be available to the public at an early date. The map has been designed in order to meet all general requirements because applications have not only been received from the school rooms of the Province but also from many other sources ranging from

prospectors to large organizations which demonstrated the interest shown in the development of the natural resources of Alberta.

*General.*—During the fiscal year this Division has been called upon to supply a large number of maps, plans and sketches covering a variety of subjects not only for the various Divisions of this Department but also for other Government Departments including the Petroleum and Natural Gas Conservation Board. Of particular interest was the material which was prepared for the Commission which visited England in connection with the oil industry of the Province. This material included four large generalized cross sections of the Turner Valley structure and other maps of the Province showing all the oil and gas locations. Maps, plans and legal metes and bounds descriptions, together with areas, were prepared in connection with the innumerable applications for provincial lands to be acquired by sale or lease under the various regulations. Among the interesting applications received were those from Ducks Unlimited, a private non-profitable organization incorporated under the laws of Canada for the purpose of restoring the wild duck breeding grounds of Western Canada. At the present time Ducks Unlimited is interested in the Ministik Lake and Many Islands Lake Bird Sanctuaries.

Work was continued on the set of plan records showing the detailed disposition of each township in the Province. Ranges 1 to 15, west of the 4th meridian, have been completed.

The stock of maps and plans which is carried by the Technical Division is becoming known far and wide. Increasing business is being done in the disposal of maps not only through the various Government Departments and to the general public over the counter, but also by mail to many distant points.

The fiscal year under review has been one of unusual activity in this Division.

## Accounting Division

### REPORT OF THE ACCOUNTANT, I. N. McKINNON

A surplus of \$1,155,088.15 on income account was shown for the period ending March 31, 1939, an increase of \$70,496.37 over the previous year. Revenue for the year was the highest in the history of the Department, amounting to \$1,864,712.75 as against \$1,606,156.50 for the previous fiscal year. Main increases and decreases were as follows:

	Increase	Decrease
Grazing permits, fees, rentals, etc. ....		\$ 21,989.03
Timber fees, dues, rentals, etc. ....		61,598.62
Coal rentals .....		8,219.42
Coal royalties .....		15,156.33
Petroleum and Natural Gas:		
Fees, rentals, etc. ....	\$ 87,605.95	
Royalties .....	145,186.90	
School lands sales interest .....	16,377.98	
School lands miscellaneous .....	107,791.52	
Miscellaneous .....	8,557.30	
Net revenue increase .....		258,556.25
	<u>\$365,519.65</u>	<u>\$365,519.65</u>

Particulars of revenue by branches will be found in Statement "B". Cash received from all sources amounted to \$2,125,754.87 as compared with \$1,789,276.20 for the previous year.

Total expenditure amounted to \$709,624.60, an increase of \$188,059.88, mainly accounted for by a rise in fire fighting costs of \$156,880.28 and also by the administration cost of the Special Areas Board, transferred to the Department in April, 1938, amounting to \$21,702.97.

### INDEX TO STATEMENTS

- A.—Statement of Cash Receipts from all Sources.
- B.—Statement of Income Revenue by Branches.
- C.—Statement of Cash Receipts, School Lands Branch.
- D.—School Lands Trust Fund Balance Sheet.
- E.—Statement of Alberta School Lands Sales Revenue Account.
- F.—Statement of Collections on Tax Recovery Lands.
- G.—Statement of Homestead Entries Granted.
- H.—Special Areas Board Statement of Receipts and Payments.



## STATEMENT A.

## STATEMENT OF CASH RECEIPTS FROM ALL SOURCES

From April 1, 1938 to March 31, 1939

## INCOME ACCOUNT:

	Gross Receipts	Refunds	Net Revenue
<i>Lands and Grazing Branch:</i>			
Cancellation fees .....	\$ 880.00	\$ 78.00	\$ 802.00
Casual .....	6,708.70	33.20	6,675.50
Cultivation fees, rentals, etc. ....	9,263.13	1,155.56	8,107.57
Filing authority fees .....	908.00	4.00	904.00
Fur farm fees and rentals .....	129.90		129.90
General sales interest .....	1,795.20		1,795.20
Grazing permits, fees, rentals, etc. ....	130,575.25	11,724.22	118,851.03
Hay permits, fees, dues, etc. ....	4,221.79	162.25	4,059.54
Homestead fees .....	13,450.00	70.00	13,380.00
Improvement collection fees .....	2,401.27		2,401.27
Surface rentals .....	2,309.62		2,309.62
<i>Timber Branch:</i>			
Casual .....	2,401.88	.75	2,401.13
Timber fees, dues, rentals, etc. ....	301,237.29	5,204.42	296,032.87
<i>Mining Lands Branch:</i>			
Casual .....	11,095.45	55.20	11,040.25
Coal fees, rentals, etc. ....	107,910.58	1,145.31	106,765.27
Coal Mines Act sundry revenue .....	4,759.18	36.80	4,722.38
Coal royalties .....	143,175.13	104.35	143,070.78
<i>Petroleum and Natural Gas:</i>			
Fees, rentals, etc. ....	375,929.02	3,479.03	372,449.99
Royalties .....	394,453.43		394,453.43
<i>School Lands Branch:</i>			
Interest on sales .....	58,162.64	33.60	58,129.04
Miscellaneous .....	318,413.53	18,345.46	300,068.07
<i>Miscellaneous:</i>			
Casual .....	7,668.27	163.35	7,504.92
Reimbursement of salaries and expenses .....	301.12		301.12
Tax recovery office fees .....	556.98	5.00	551.98
Services and supplies .....	8,218.39	412.50	7,805.89
<b>TOTAL INCOME ACCOUNT.....</b>	<b>\$1,906,925.75</b>	<b>\$ 42,213.00</b>	<b>\$1,864,712.75</b>
<b>CAPITAL ACCOUNT:</b>			
Land sales principal .....	8,655.20	61.27	8,593.93
<b>TOTAL INCOME AND CAPITAL ACCOUNTS .....</b>	<b>\$1,915,580.95</b>	<b>\$ 42,274.27</b>	<b>\$1,873,306.68</b>
<b>UNAPPLIED RECEIPTS CARRIED FORWARD:</b>			
(Subject to refund)			
Improvements .....	12,545.78	5,383.36	7,162.42
Suspense .....	38,520.74		38,520.74
School lands cultivation crop shares .....	77.48		77.48
Land patents cultivation crop shares .....	20.06		20.06
Grazing permits, fees, rentals, etc. ....	4,388.11		4,388.11
	<b>\$1,971,133.12</b>	<b>\$ 47,657.63</b>	<b>\$1,923,475.49</b>
<b>TRUST ACCOUNTS:</b>			
School lands trust fund .....	86,322.26		
Special Areas trust account .....	68,299.49		
	<b>\$2,125,754.87</b>		

## STATEMENT B.

## STATEMENT OF INCOME REVENUE BY BRANCHES FOR FISCAL YEARS ENDING

March 31, 1938 and March 31, 1939

	Fiscal year ending March 31, 1938	Fiscal year ending March 31, 1939
Lands and Grazing Branch .....	\$ 181,412.38	\$ 159,415.63
Timber Branch .....	360,380.18	298,434.00
Mining Lands Branch .....	818,609.83	1,032,502.10
School Lands Branch .....	234,027.61	358,197.11
Miscellaneous .....	11,726.50	16,163.91
	<b>\$1,606,156.50</b>	<b>\$1,864,712.75</b>

## DEPARTMENT OF LANDS AND MINES

## STATEMENT C.

SCHOOL LANDS BRANCH  
STATEMENT OF CASH RECEIPTS

April 1, 1938 to March 31, 1939

	Receipts	Refunds	Net Revenue
<b>INCOME ACCOUNT:</b>			
Sales: interest .....	\$ 58,162.64	\$ 33.60	\$ 58,129.04
Cultivation fees, rentals, etc. ....	99,473.87	17,857.86	81,616.01
Miscellaneous leases .....	353.87		353.87
Timber permits, fees, dues, etc. ....	18,117.22	212.93	17,904.29
Grazing fees, rentals, etc. ....	15,696.85	22.37	15,674.48
Hay fees, dues, etc. ....	1,314.37	85.30	1,229.27
Coal fees, rentals, etc. ....	4,710.98	45.00	4,665.98
Coal mining royalties .....	9,270.23		9,270.23
Petroleum and natural gas: fees, rentals, etc. ....	40,857.42	122.00	40,735.42
Petroleum and natural gas royalties .....	128,312.33		128,312.33
Miscellaneous .....	306.19		306.19
	<u>\$ 376,576.17</u>	<u>\$ 18,379.06</u>	<u>\$ 358,197.11</u>
<b>TRUST ACCOUNT:</b>			
School lands sales principal .....	86,322.26		86,322.26
<b>TOTAL INCOME AND TRUST ACCOUNTS</b>	<u>\$ 462,898.43</u>	<u>\$ 18,379.06</u>	<u>\$ 444,519.37</u>

## STATEMENT D.

## ALBERTA SCHOOL LANDS TRUST FUND

BALANCE SHEET—March 31, 1939

ASSETS			
Cash in bank and on hand .....		\$ 30,199.34	
Investments:			
Dominion of Canada debentures .....	\$10,056,394.10		
Accrued interest .....	98.15		
		10,056,492.25	
Due from Provincial Treasurer .....		1.43	
Accounts Receivable:			
Undue principal .....	\$ 1,258,411.33		
Arrears principal .....	868,564.10		
		2,126,975.43	
			<u>\$12,213,668.45</u>
LIABILITIES			
Alberta School Lands Trust Fund .....		\$12,213,668.45	<u>\$12,213,668.45</u>

## STATEMENT E.

ALBERTA SCHOOL LANDS SALES  
REVENUE ACCOUNT

April 1, 1938 to March 31, 1939

Arrears interest as at March 31, 1938 .....	\$1,509,260.20	
Interest charged .....	383,388.32	
Interest on reinstated accounts .....	273,207.74	
Interest revenue .....		\$ 58,129.04
Interest on cancelled sales written off .....		68,781.93
Amounts transferred from cultivation leases held on reinstated sales .....		51,179.47
Interest reductions granted by School Land Board .....		1,090,421.03
Arrears interest as at March 31, 1939 .....		897,344.79
	<u>\$2,165,856.26</u>	<u>\$2,165,856.26</u>

## STATEMENT F.

## STATEMENT OF COLLECTIONS ON TAX RECOVERY LANDS

April 1, 1938 to March 31, 1939

Grazing permits .....	\$ 3,230.06
Grazing rentals .....	3,756.04
Improvements .....	70.00
Sales principal .....	434.11
Sales interest .....	8.37
Mineral surface rentals .....	16.18
Cultivation rentals .....	1,342.02
Cultivation crop shares .....	4,959.48
Miscellaneous rentals .....	66.04
Miscellaneous use permits .....	14.39
	<u>\$ 13,896.69</u>
Office fees .....	551.98
	<u>\$ 14,448.67</u>

## STATEMENT G.

HOMESTEAD ENTRIES GRANTED  
April 1, 1938 to March 31, 1939

	Homesteads	Second Homesteads	Soldier Grants	Total	Entries to Women
Edmonton Land Agency .....	626	40	2	668	244
Calgary Land Agency .....	3	3	1	7	1
Lethbridge Land Agency .....	.....	.....	.....	.....	.....
Peace River Land Agency .....	648	30	.....	678	268
	<u>1,277</u>	<u>73</u>	<u>3</u>	<u>1,353</u>	<u>513</u>



